TOSHIBA

MINIATURE LAMPS

小形電球カタログ

ウエッジベースランプ
ウエッジベースランプ用ソケット
サブミニチュアランプ

WEDGE BASE LAMP
SOCKET FOR WEDGE BASE LAMP
SUB MINIATURE LAMP

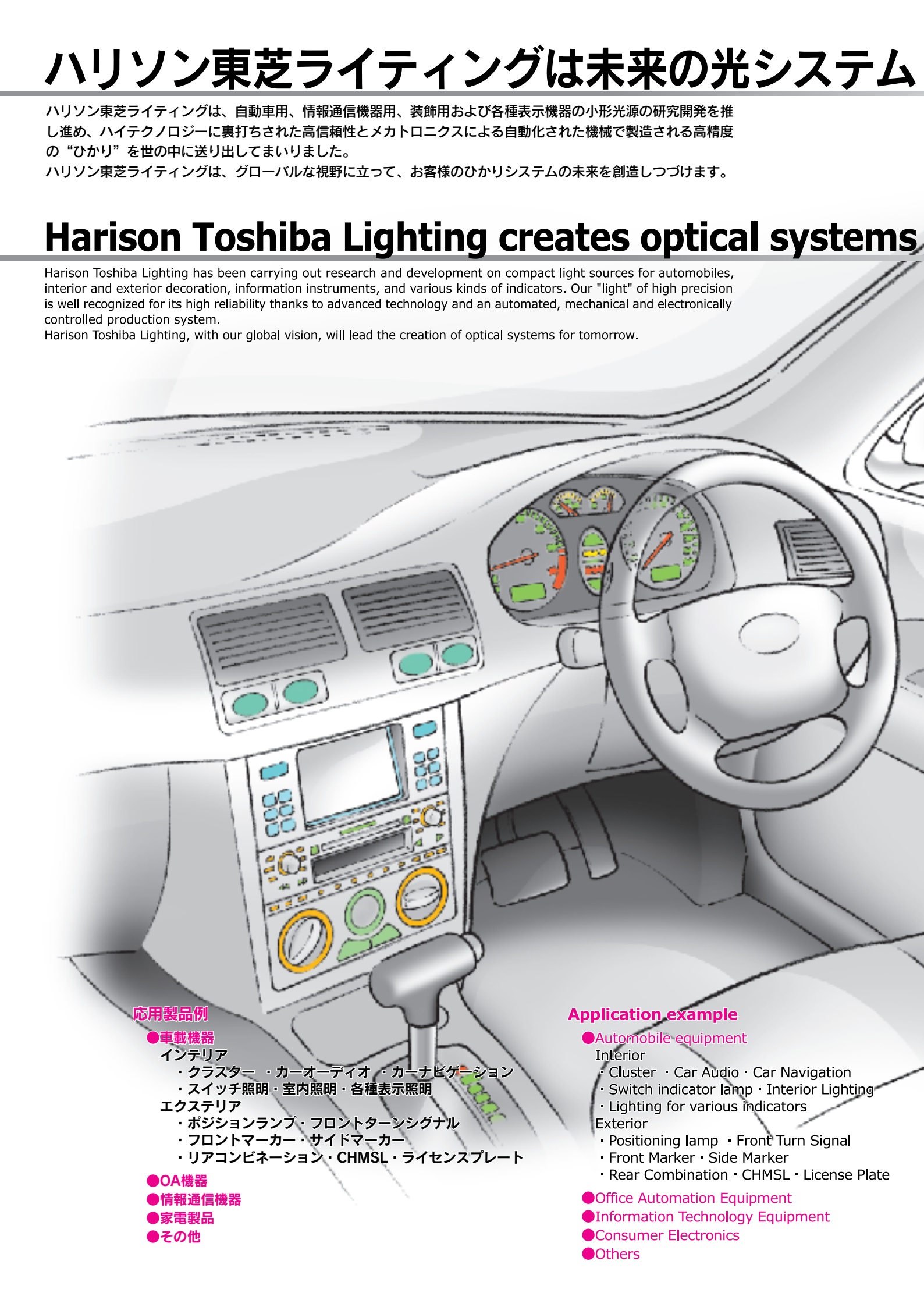
ハリソン東芝ライティング株式会社
HARISON TOSHIBA LIGHTING Corp.

ハリソン東芝ライティングは未来の光システム

ハリソン東芝ライティングは、自動車用、情報通信機器用、装飾用および各種表示機器の小形光源の研究開発を推し進め、ハイテクノロジーに裏打ちされた高信頼性とメカトロニクスによる自動化された機械で製造される高精度の“ひかり”を世の中に送り出してまいりました。
ハリソン東芝ライティングは、グローバルな視野に立って、お客様のひかりシステムの未来を創造しつづけます。

Harison Toshiba Lighting creates optical systems

Harison Toshiba Lighting has been carrying out research and development on compact light sources for automobiles, interior and exterior decoration, information instruments, and various kinds of indicators. Our "light" of high precision is well recognized for its high reliability thanks to advanced technology and an automated, mechanical and electronically controlled production system.
Harison Toshiba Lighting, with our global vision, will lead the creation of optical systems for tomorrow.



応用製品例

●車載機器
インテリア
・クラスター ・カーオーディオ ・カーナビゲーション
・スイッチ照明・室内照明・各種表示照明
エクステリア
・ポジションランプ・フロントターンシグナル
・フロントマーカー・サイドマーカー
・リアコンビネーション・CHMSL・ライセンスプレート

●OA機器
●情報通信機器
●家電製品
●その他

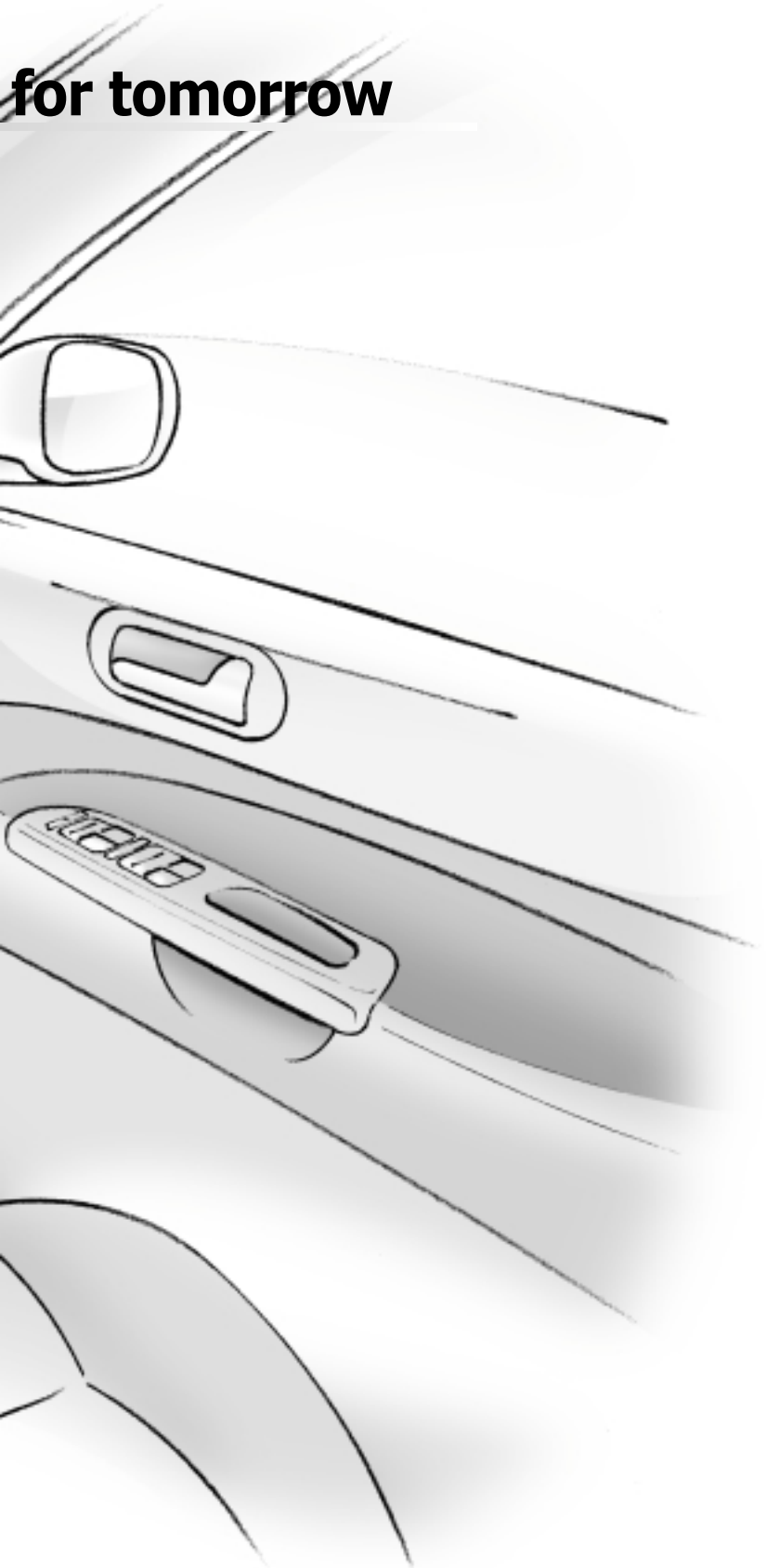
Application example

●Automobile equipment
Interior
・Cluster ・Car Audio・Car Navigation
・Switch indicator lamp・Interior Lighting
・Lighting for various indicators
Exterior
・Positioning lamp ・Front Turn Signal
・Front Marker・Side Marker
・Rear Combination・CHMSL・License Plate

●Office Automation Equipment
●Information Technology Equipment
●Consumer Electronics
●Others

を創造します。

for tomorrow



CONTENTS

カタログの見方

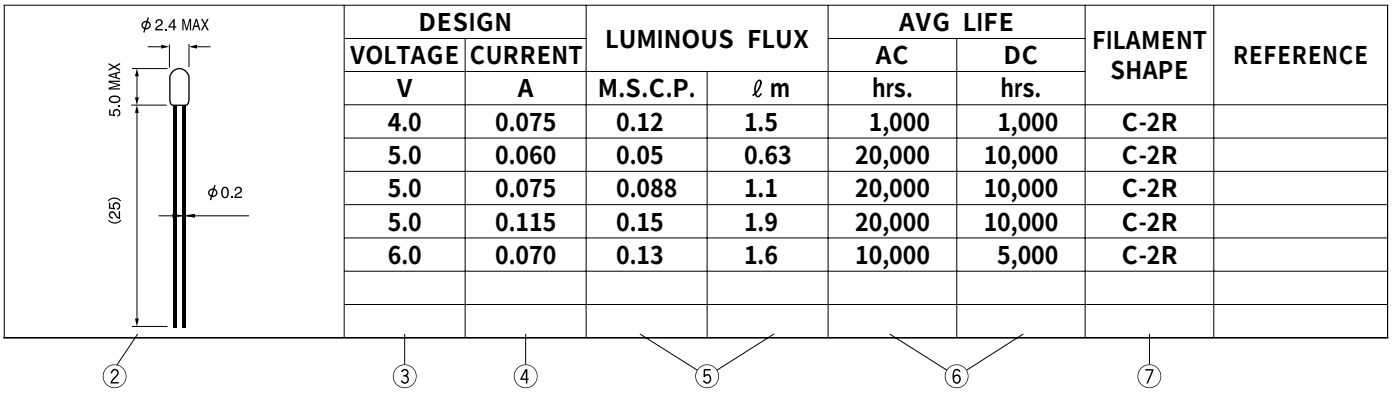
カタログの見方

ランプを選定するにあたり、カタログの見方をご説明致します。

〈例〉

①

T2.4mm（T−3/4）



DESIGN		LUMINOUS FLUX		AVG LIFE		FILAMENT SHAPE	REFERENCE
VOLTAGE	CURRENT			AC	DC		
V	A	M.S.C.P.	ℓ m	hrs.	hrs.		
4.0	0.075	0.12	1.5	1,000	1,000	C-2R	
5.0	0.060	0.05	0.63	20,000	10,000	C-2R	
5.0	0.075	0.088	1.1	20,000	10,000	C-2R	
5.0	0.115	0.15	1.9	20,000	10,000	C-2R	
6.0	0.070	0.13	1.6	10,000	5,000	C-2R	

② ③ ④ ⑤ ⑥ ⑦

① ガラス球径

形と大きさを形状記号（T は管状の意）と最大部直径の公称値をミリメーター（mm）で示しています。また、もう一つの方法は、（ ）のように形状記号と最大部直径を１／８インチ基準で示します。

② 外観図

外観図に主な寸法をミリメーター（mm）で示します。

（ ）内数値は参考値を示します。

③ 試験電圧

カタログの電流、明るさ、平均寿命等が得られる印加電圧をボルト（単位記号：V）で示します。

④ 電流

ランプに試験電圧を印加した時に流れる電流値をアンペア（単位記号：mA, A）で示します。特に、規定されてない限り±10%の範囲にあります。

⑤ 明るさ

明るさの単位として、日本及び欧州においては通常 LUMEN（単位記号：ℓ m）が用いられ、米国では MEAN SPHERICAL CANDLE POWER（単位記号：M.S.C.P.）が用いられておりこの両方で示します。

M.S.C.P.と光源から発散される全光量である全光束（ℓ m）との間には次の関係があります。

$$\text{M.S.C.P.} \times 4\pi = \ell\,\text{m}$$

明るさの公差範囲は、通常±25%で管理しております。

HOW TO USE THE CATALOG

Here is the explanation of how to use the catalog to select a lamp.

〈Example〉

① BULB DIAMETER

Shape and size are represented by a shape symbol (T means a tube) and a nominal value of a maximum diameter in milimeters (mm). Otherwise, a shape symbol and a maximum diameter are indicated in 1/8-inch standard in a parentheses.

② APPEARANCES AND DIMENSIONS

Major dimensions are indecated in millimeters (mm).

Value described in ( ) represents reference value only.

③ DESIGN VOLTAGE

The design voltage (Unit symbol : V) indicates the applied voltage at which the lamp's design current luminous flux and average life can be utilized.

④ DESIGN CURRENT

The term design current (Unit symbol : mA, A) indicates the current flow when a lamp's design voltage has been applied. The current flow value (design current) shall be within the range of ±10% unless otherwise stated.

⑤ LUMINOUS FLUX

As a luminous flux unit, LUMEN (Unit symbol : ℓ m) is used usually in Japan and Europe, and MEAN SPHERICAL CANDLE POWER (Unit symbol : M.S.C.P.) is used in the United States of America. Both units are indicated in the catalog.

The relation between M.S.C.P. and LUMEN (ℓ m) which is the total light quantity emitted from alight source is :

$$\text{M.S.C.P.} \times 4\pi = \ell\,\text{m}$$

The tolerance range of luminous fiux is usually controlled within ±25%.

⑥ **平均寿命**

平均寿命は、試験電圧を印加し電圧変動±１％以内で衝撃、振動、室温の変化のないよう厳重に管理した状態において連続点灯試験を行い、不灯に至るまでの時間の平均値をいい交流点灯時を AC AVG LIFE（単位記号：hrs.）、直流点灯時を DC AVG LIFE（単位記号：hrs.）で示します。また、最低寿命は試験電圧を印可し、電圧変動±１％以内で衝撃、振動、室温の変化がないよう厳重に管理した状態において連続点灯試験を行い、最初に不灯に至るまでの時間をいいます。

ランプ寿命は効率によって左右され一般に効率が高いと短くなり、低いと長くなります。

効率（ℓm/W）＝（ℓm）÷（電圧×電流）

小形電球は一般的に長寿命の為、寿命の評価として過電圧による加速度寿命試験によって推定される概算値を寿命とする（理論寿命）場合が多くあります。その際寿命は印加電圧の12～13乗に反比例する理論式によって理論寿命を算出します。

しかし、小形電球は直流（DC）点灯の場合は寿命が50%もしくはそれ以下になるものもあります。

⑦ **フィラメント形状**

フィラメントの長さと径は、電圧・電流・明るさ・寿命によって決定され更に、使用するバルブの大きさによりフィラメント形状が決定されます。尚、アンカーは使用目的等により、耐振動・耐衝撃性向上のために取り付けられる場合があります。

⑥ **AVERAGE LIFE**

Average life is defined as the average time required to burn out the filament in the continuous lighting test in rigidly controlled laboratory conditions not having any shock, vibration or temperature changes at the lamp's design voltage within 1% of voltage regulation. Average life at AC lighting and DC lighting are represented as AC AVG LIFE (unit symbol : hrs.) and DC AVG LIFE (Unit symbol : hrs.) respectively. Also, minimum life is defined as the time required to burn out the first filament in the continuous lighting test in rigidly controlled laboratory conditions not having any shock, vibration or temperature changes at the lamp's design voltage within ±1% of voltage regulation.

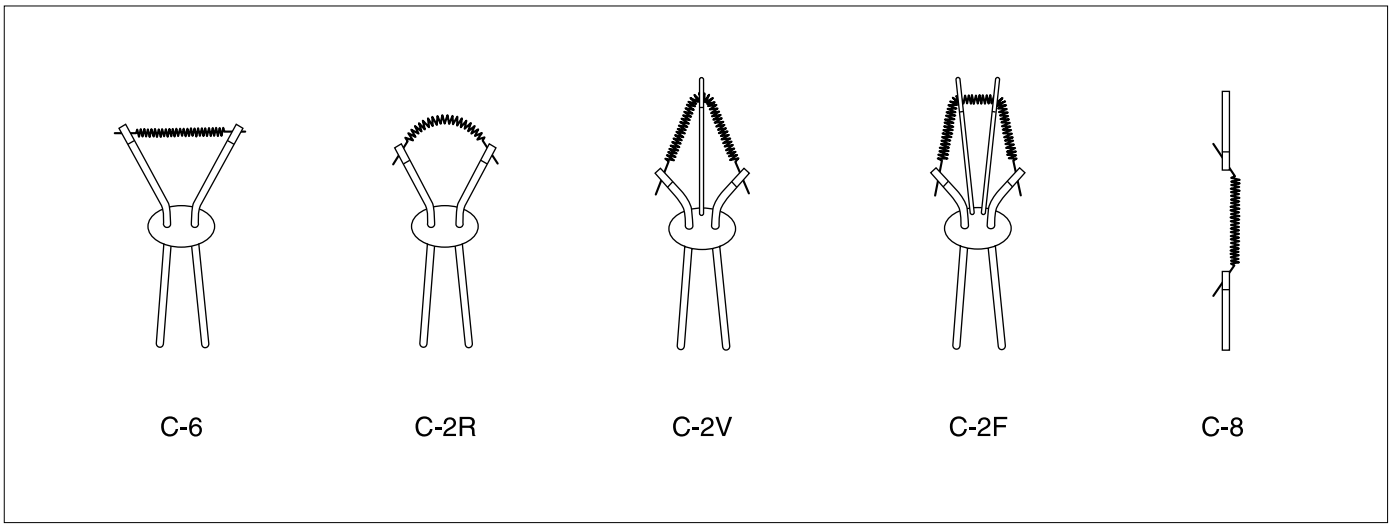
Lamp life will depend on the lamp efficiency as shown in the formula below :

$$\text{Efficiency}(\ell m/W) = \frac{\text{Luminous flux}(\ell m)}{\text{Voltage} \times \text{Current}}$$

Since the life ratings for miniature lamps are so long, the theoretical life by performing accelerated life tests by operating the lamp at a accelerated voltage can be used. Theoretical life is calculated by taking the inverse proportion of the operating voltage to the power of 12 to 13. However, miniature lamp life, at DC voltage, may have only 50% or less of the calculated average life.

⑦ **FILAMENT SHAPE**

The length and diameter of a filament are decided by the voltage, current, luminous flux and average life, and filament shape is decided by the size of a bulb to use. An anchor may be attached to improve resistance against vibration or impact according to the purpose to use.

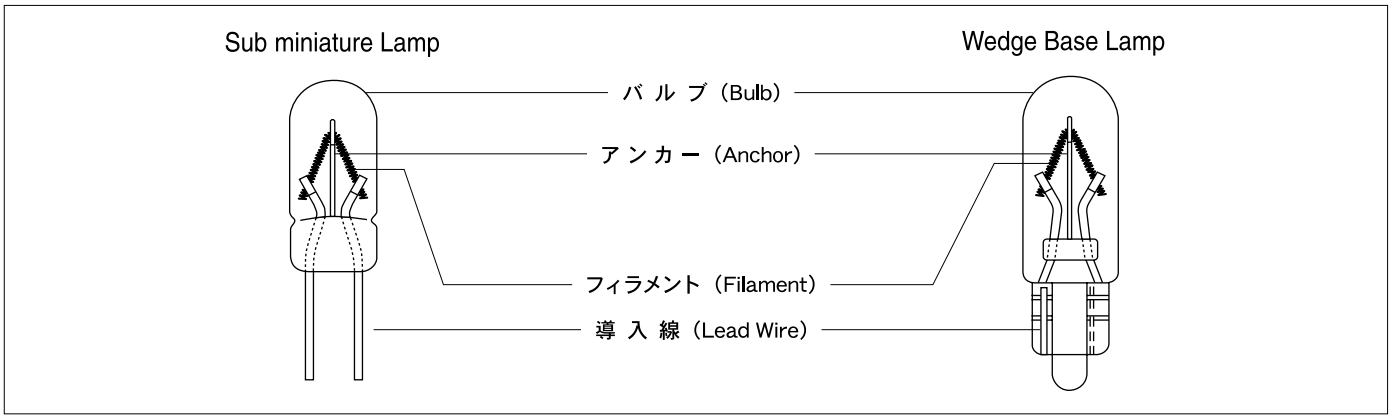


注）尚、ランプに表示する定格電圧と試験電圧には相違がありますのでご注意下さい。

NOTE) Please note that there is a difference between rated voltage and design voltage.

ランプ構造図

LAMP STRUCTURAL DRAWING



○ **バルブ**

当社で製造されるランプのほとんどは軟質ガラス（軟化点605～625℃）が使用されております。

○ **アンカー**

フィラメントの線径及び長さによって、フィラメントの変形による短絡事故を防ぐために、モリブデン線を使用してフィランメントを支持する必要があります。また、耐衝撃性を増すために使用する場合があります。

○ **フィラメント**

タングステン線をコイル状にしたものです。

○ **導入線**

主にサブミニチュアランプは、鉄・ニッケル合金に銅を被覆したジュメット線を、ウエッジベースランプはジュメット線に Ni メッキした線を使用しております。

サブミニチュアランプのワイヤーターミナルは、ご要望によりメッキも致しております。

○ **真空またはガス封入**

ランプ内は点灯時、タングステン線の蒸発を抑制するため、空気を排除し真空にしています。また、ウエッジベースランプには不活性ガス（アルゴン・クリプトン・キセノン等）を封入し、寿命を長くしているものやフィラメント温度を高くしているものもあります。

ランプ選定の目安

ランプは、使用される条件により品質及び特性が変化する場合があります。次の内容を目安として、より適切なランプを選定していただくことをお勧め致します。

○ **振動・衝撃**

フィラメントの長さ及び径により影響度合が違ってきます。長くて細いフィラメントほど振動・衝撃の影響を受けやすく、振動・衝撃によるフィラメント変形、コイルタッチが発生し、電流値・フィラメント温度上昇により寿命が短くなります。従ってフィラメントの径は、電流値により決定されるのでできる限り電流値の高いランプを使用されることをお勧めいたします。

○ **効率**

効率の低い（消費電力が大きく明るさの低い）ランプほど長寿命を得ることができますので、できるかぎり電流値が高く明るさの低いランプを使用されることをお勧め致します。効率は、消費電力と明るさにより変化し、次の関係式により成立っています。

消費電力（W）＝電圧（V）×電流（A）

効率（ℓm/W）＝明るさ（ℓm）÷消費電力（W）

○ **ガラス球径**

高温状態にて使用した場合、ガラスからガスが発生しそのガスの影響を受けて寿命が短くなります。この場合高温状態を避ける工夫をされるか、避けられない場合ガラス球径のより大きいランプをお勧めいたします。

○ **BULB**

Soft glass (softening point 605～625℃) is used in most of the lamps we produce.

○ **ANCHOR**

It is necessary for some filaments to support it with a molybdenum wire to prevent a short circuit caused by deformation of a filament depend on its diameter and length.
It is also used to increase impact proof.

○ **FILAMENT**

It is a tungsten wire winded in a coil.

○ **LEAD WIRE**

A Dumet wire, a copper covered wire with an alloy of iron and nickel, is used for Sub Miniature Lamps, and a Ni plated Dument wire is used for Wedge Base Lamps.
Plating is available for a wire terminal of Sub Miniature Lamps on your request.

○ **VACUUM OR GAS-FILLED**

In lighting, inside of a lamp it is vacuumed by removing air to control the evaporation of a tungsten wire. Also, in some Wedge base lamps, inert gas (argon, krypton, xenon, etc.) is sealed for longer life or higher filament temperature.

GUIDELINES FOR LAMP SELECTION

Lamps may change their quality and characteristics due to the working conditions. We recommend to select more suitable lamps according to the following guidelines.

○ **VIBRATION・SHOCK**

The degree of effect depends on the length and diameter of a filament. The longer or thinner a filament is, the more effect of vibration or shock it gets. Also, vibration or shock makes a filament deformed and a coil touched. Thus the life becomes shorter because of the increase of amperes and filament temperature. Therefore, we recommend to use as higher ampere lamps as possible because the diameter of a filament is decided by amperes.

○ **EFFICIENCY**

We recommend to use the lamps as higher amperes and lower luminous flux as possible because the lower the efficiency (high amperes and low luminance) is, the longer the life is. Efficiency changes depend on wattage and luminous flux, and the relations are formulated as follows :

$$\text{Wattage(W)} = \text{Voltage(V)} \times \text{Current(A)}$$

$$\text{Efficiency}(\ell\text{m/W}) = \frac{\text{Luminous flux}(\ell\text{m})}{\text{Wattage(W)}}$$

○ **BULB DIAMETER**

When a bulb is used in a high temperature, gas is generated from the glass, and life becomes shorter because of the effects of the gas. In this case, we recommend not to have high temperature conditions. If that is impossible, we recommend to use the lamps with bigger bulb diameter.

小形電球の特性

ランプの特性(電流・明るさ)及び寿命は印加される電圧により変化します。
一般的に各々の関係式は次の通りになります。

$$A_1 = \left(\frac{Va}{Vb}\right)^{0.55} \times A_0$$

$$F_1 = \left(\frac{Va}{Vb}\right)^{3.50} \times F_0$$

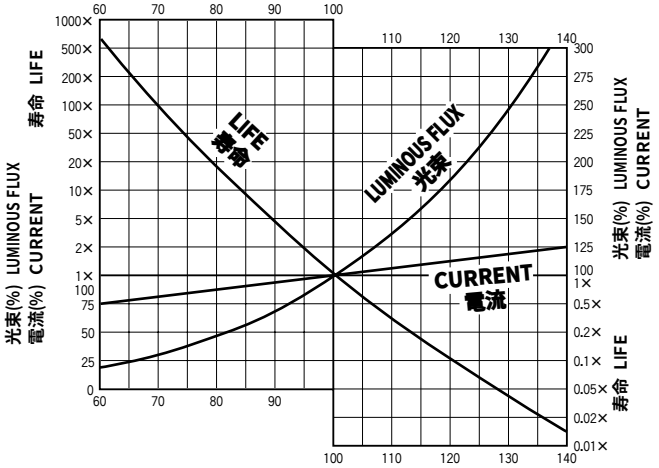
$$L_1 = \left(\frac{Vb}{Va}\right)^{12.0} \times L_0$$

Characteristics of Miniature Lamps ;

The characteristics (current, brightness) and life vary by voltage. Generally, the relation is formulated as follows.

V_a : 使用電圧	Operating Voltage
V_b : 試験電圧	Design Voltage
A_1 : 使用時の電流	Current at operating
A_0 : 試験電圧時の電流	Current at design voltage
F_1 : 使用時の明るさ	Brightness at operating
F_0 : 試験電圧時の明るさ	Brightness at design voltage
L_1 : 理論寿命	Theoretical Lamp Life
L_0 : 平均寿命	Average Life Time

Brightness : Luminous flux or M.S.C.P.



$$\frac{\text{使用電圧(Operating voltage)}}{\text{定格電圧(Rated voltage)}} \times 100(\%)$$

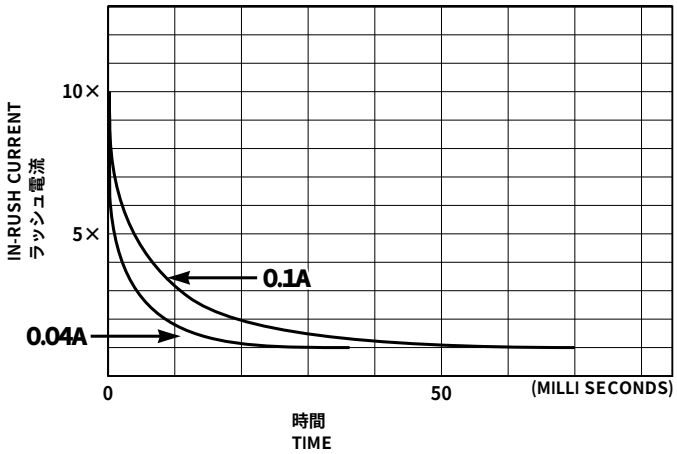
ラッシュ電流

ランプのフィラメント冷抵抗は点灯時の約１/10で、この為ランプ点灯の瞬間に大きな過度電流が流れます。この電流をラッシュ電流と言います。この電流の大きさと持続時間はランプの容量と効率によって異なります。付図はラッシュ電流対時間をグラフにしたものです。これらのラッシュ電流を減らすには予めフィラメントに定格時の15%程度の電流を流すことによってラッシュ電流を低減させることができます。

In-Rush Current ;

Since the cold resistance of the filament is one-tenth of the resistance of the filament during lighting, a big transient current at the instant of "switch-on" occurs. This current is called "in-rush current." The maximum current and transient time depends on efficiency of the in-rush current. Below is the current change vs. lighting time. In-rush current can be reduced by applying 85% less of the rated current to the lamp.

INRUSH CURRENT vs. LIGHTING TIME
ラッシュ電流 対 時間



小形電球の技術概要

点滅

点滅を頻繁に繰り返すとラッシュ電流の影響により一般的に寿命が短くなる事があります。
点滅回数・間隔・ランプ容量・効率等により異なりますので使用の際は御相談ください。

On-Off Cycle ;

If the lamp is turned on and off frequently, the lamp life could be reduced due to in-rush current. Since it depends on the conditions of frequency, interval period, lamp size and efficiency, please ask us for suitable specification with the expected application.

衝撃及び振動

ランプを長時間点灯するとフィラメントの結晶が成長し弱くなり強度が低下します。又、振動・衝撃の影響によりフィラメントが変形しコイルタッチを起こし電流値が増大しフィラメント温度の上昇により寿命が短くなります。特に直流点灯の場合は顕著にあらわれます。耐衝撃性が要求される場合は定格電圧が低く、電流値の高い品種をお選び下さい。

Mechanical Shock and Vibration ;

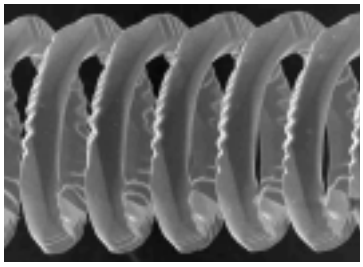
After lighting for a long time, the filament becomes weaker and fragile due to growing crystals over time. Filament thickness decreases and lamp life will become shorter due to the ongoing evaporation of the tungsten filament as the temperature rises and current value increases. Sometimes the filament turns could become shorter by deformation of the filament due to vibration and/or mechanical shock. In the case of lighting under DC voltage, this phenomena would be more obvious. For heavy shock and vibration applications, a lamp which has a lower rated voltage and higher current would be selected.

ノッチングによる小形電球の寿命

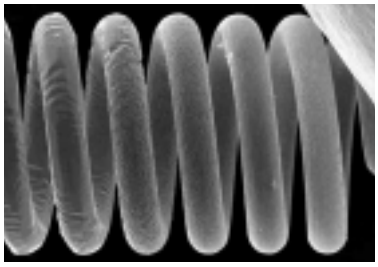
ノッチング現象とは

ノッチング現象とは、電球の点灯過程においてフィラメントの表面全体、又は一部分に鋸歯状又は段状の凹凸が現れる現象を言います。これはフィラメントであるタングステンのイオン移動により発達し、時間と共に凹凸が顕著に現れます。

ノッチングは交流・直流の点灯条件により異なり、交流の場合はフィラメントがサポートされている近くの部分（温度勾配部）とフィラメントが導入線と接続されている部分（温度勾配部）に発生します。直流点灯の場合はタングステンイオンが一定方向へ移動する事によりフィラメント全体に亘ってノッチングが発生します。



高温部
HIGH TEMP AREA



温度勾配部
TEMP GRADIENT AREA

The Influence of Notching Upon the Life of Miniature Lamp Filaments ;

■ Notching

Notching is the phenomena in which a saw-toothed surface appears over portions of the filament. The notching grows due to the electro-migration of tungsten ions and becomes more noticeable after long operation. Notching depends on the lighting condition, either DC or AC. At AC voltage, the notching occurs near the area where the filament is supported by the anchor or is connected with the lead-in wire. These areas have a temperature gradient. At DC voltage, since tungsten ions move in only one direction, the notching occurs over the entire filament. Therefore, the lamp life at DC voltage becomes shorter than at AC voltage because of more severe notching. In order to reduce the notching, a rhenium tungsten filament, which has a higher temperature recrystallization point, can be used.

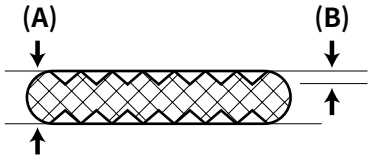
ノッチング現象とフィラメント線径との関係

ノッチングによる凹凸の深さ（Ｂ）はフィラメント線径（Ａ）に関係なく、ほぼ同じ深さで発生します。

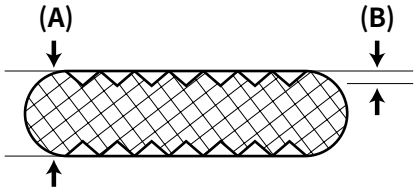
従ってフィラメント線径（Ａ）が大きい程ノッチングの影響が少なく長寿命化が図られます。

■ Notching and Filament Diameter

There is no relationship between the depth of notching and the diameter of filament. This means the influence of notching decreases as filament diameter increases. Therefore, by using a thicker tungsten filament, longer lamp life can be achieved.



フィラメント線径小
SMALLER DIA OF FILAMENT



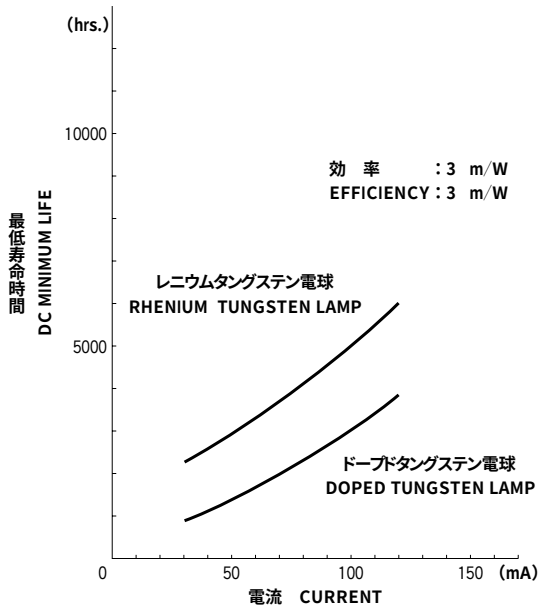
フィラメント線径大
LARGER DIA OF FILAMENT

レニウムタングステンフィラメント

ノッチング現象に影響されるような特性のランプで最低寿命の改善を図りたい場合、再結晶温度の高いレニウムタングステン材を使用したランプをお勧め致します。また、耐振性、耐衝撃の改善としても効果的です。

RHENIUM TUNGSTEN FILAMENT

When you would like to improve the minimum life of the lamps whose characteristics are affected by Notching phenomenon, we recommend the lamps using rhenium tungsten material which has high recrystallization temperature. Besides, these lamps are effective to improve the resistance against vibration and shock.

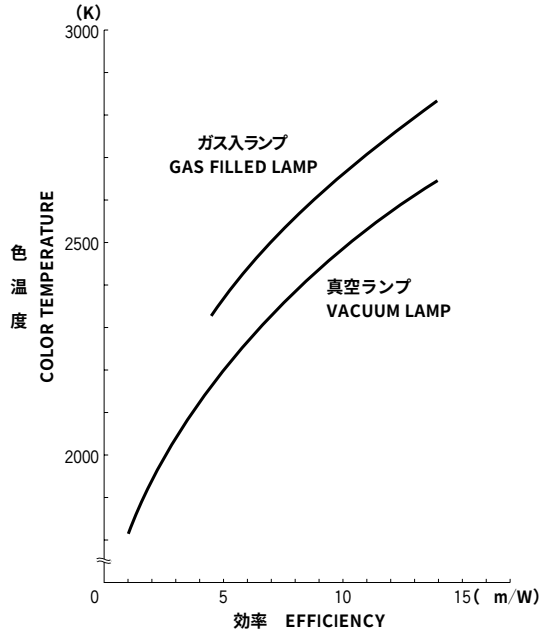


色温度と効率

色温度(K)は、ランプ効率(ℓm/W)との相関がありグラフに示す通り効率(ℓm/W)が高くなると色温度も高くなります。ガス入りランプは、真空ランプに比べ同一効率において色温度が高く白色化できます。

COLOR TEMPERATURE AND EFFICIENCY

Color temperature (K) is correlated with lamp efficiency (ℓm/W). As is shown in the graph, color temperature increases as efficiency (ℓm/W) increases. Gas-filled lamps can be of white color because the color temperature is higher at the same efficiency compared with vacuum lamps.

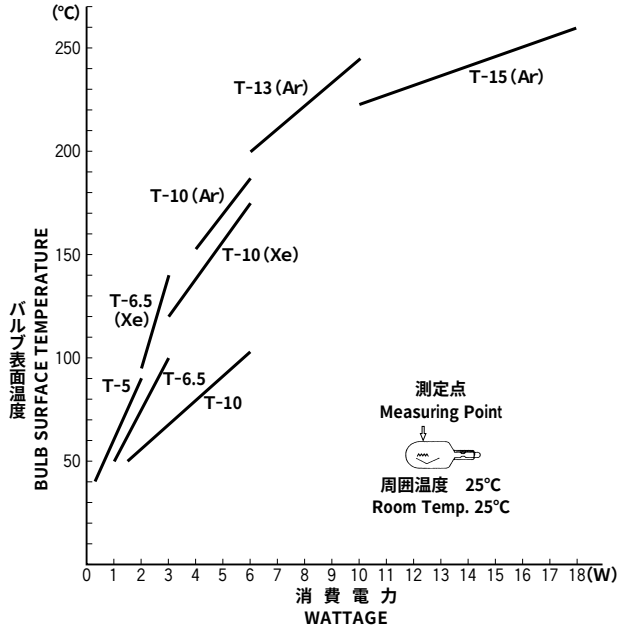


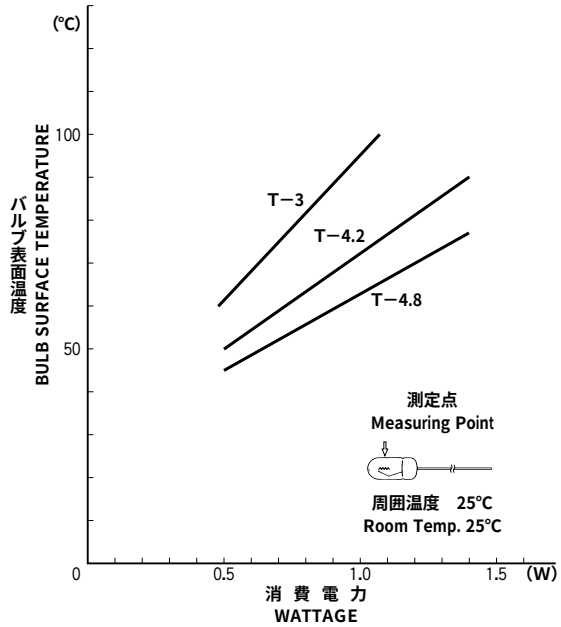
バルブ表面温度

ランプは、フィラメントを高温で白熱させるため、赤外放射が多くバルブの表面温度が高くなります。

BULB SURFACE TEMPERATURE

A Lamp makes a filament incandescent at a high temperature. Therefore, surface temperature of a bulb becomes high due to much infrared radiation.

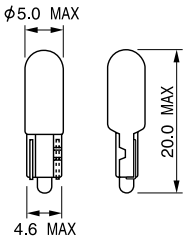




ウエッジベースランプ

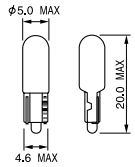
T5 ウエッジベースランプ　T-1 1/2 WEDGE BASE LAMPS

T5.0mm (T-1 1/2) I. E. C.　TYPE (BASE W2×4.6d)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
6.0	80	0.07	0.9	10,000	5,000	C-2V		1104	
6.0	167	0.30	3.8	10,000	5,000	C-2V			6V1W
6.0	200	0.16	2.0	20,000	10,000	C-2V	A7401	62	
6.0	200	0.48	6.0	2,000	1,000	C-2V	A7402	66	
6.3	200	0.40	5.0	20,000	10,000	C-2F			
8.0	150	0.40	5.0	20,000	10,000	C-2V	A7404	68	
12.0	42	0.24	3.0	2,000	1,000	C-2V	A7428	78	12V0.5W
12.0	50	0.15	1.9	10,000	5,000	C-2V		1192	
12.0	80	0.08	1.0	20,000	10,000	C-2V			
13.5	89	0.60	7.5	2,000	1,000	C-2V		286	12V1.2W
13.5	90	0.16	2.0	20,000	10,000	C-2V	A7425	72	
13.5	150	0.95	12.0	2,000	1,000	C-2V	A7427	76	12V2W
14.0	40	0.13	1.6	6,000	3,000	C-2F			
14.0	60	0.20	2.5	10,000	5,000	C-2V	A7434	94	
14.0	80	0.30	3.8	15,000	7,500	C-2F	A7431	73	
14.0	80	0.48	6.0	4,000	2,000	C-2V	A7441		
14.0	80	0.56	7.0	2,000	1,000	C-2V	A7438	99	
14.0	90	0.50	6.3	5,000	2,500	C-2F	A7454		
14.0	100	0.48	6.0	10,000	5,000	C-2V	A7448		
14.0	100	0.72	9.0	2,000	1,000	C-2V	A7426	74	14V1.4W
14.0	100	0.72	9.0	2,000	1,000	C-2F	A7435	95	
14.0	140	0.64	8.0	10,000	5,000	C-2V	A7429	80	
14.0	143	0.64	8.0	10,000	5,000	C-2V			
24.0	50	0.40	5.0	4,000	2,000	C-2F			24V1.2W
28.0	40	0.30	3.8	6,000	3,000	C-2F	A7477	96	
28.0	43	0.60	7.5	2,000	1,000	C-2F	A7480		24V1.2W
28.0	50	0.56	7.0	4,000	2,000	C-2F	A7472	84	
28.0	50	0.72	9.0	2,000	1,000	C-2F	A7470	79	24V1.4W
28.0	65	0.65	8.2	5,000	2,500	C-2F			
28.0	72	0.95	12.0	1,000	500	C-2F	A7473	86	24V2W

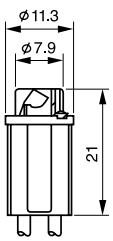
T5.0mm (T-1 1/2)　ECE認証取得品種　ECE APPROVED



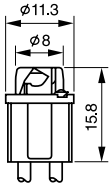
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
13.5	170	1.48	18.6	2,000	1,000	C-2V		W2.3W	

T5 ウエッジベースランプ用ソケット　SOCKET FOR T-1 1/2 WEDGE BASE LAMPS

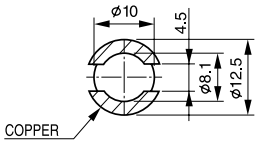
WBS3009



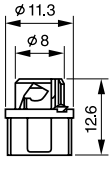
WBS3010



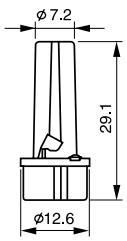
基板取付穴
BOARD HOLE DIMENSION



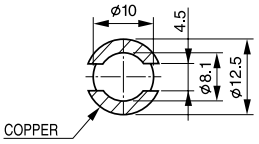
WBS3017



WBS3501

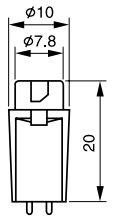


基板取付穴
BOARD HOLE DIMENSION

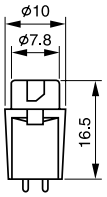


T5 ウエッジベースランプ用ソケット　SOCKET FOR T-1 1/2 WEDGE BASE LAMPS

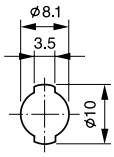
WBS3006



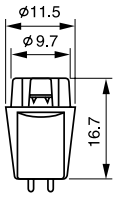
WBS3007



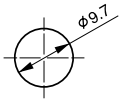
基板取付穴
BOARD HOLE DIMENSION



WBS3013

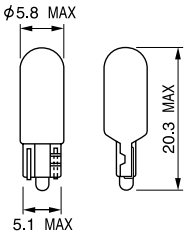


基板取付穴
BOARD HOLE DIMENSION



T5.6 ウエッジベースランプ　T-1 3/4 WEDGE BASE LAMPS

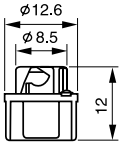
T5.6mm (T-1 3/4) S. A. E.　TYPE (BASE W2.2×5.1d)



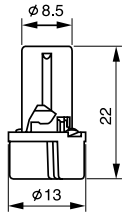
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	115	0.15	1.9	20,000	10,000	C-2R	A8426	SAE 56	
6.0	200	0.60	7.5	2,000	1,000	C-2R		SAE 79	
6.3	40	0.03	0.4	20,000	10,000	C-2V		SAE 84	
6.3	200	0.40	5.0	20,000	10,000	C-2F	A8401	SAE 86	
13.5	150	0.95	12.0	2,000	1,000	C-2V	A8433		12V2W
14.0	40	0.13	1.6	6,000	3,000	C-2F	A8421	SAE 18	
14.0	80	0.30	3.8	15,000	7,500	C-2F	A8425	SAE 73	
14.0	90	0.50	6.3	5,000	2,500	C-2F	A8428	SAE 37	
14.0	100	0.70	8.8	2,000	1,000	C-2F	A8429	SAE 74	
14.0	143	0.64	8.0	10,000	5,000	C-2F	A8431		14V2W
14.0	150	1.50	18.8	200	100	C-2F		SAE 70	
28.0	40	0.30	3.8	6,000	3,000	C-2F	A8423	SAE 85	
28.0	65	0.65	8.2	5,000	2,500	C-2F	A8424	SAE 17	

T5.6 ウエッジベースランプ用ソケット　SOCKET FOR T-1 3/4 WEDGE BASE LAMPS

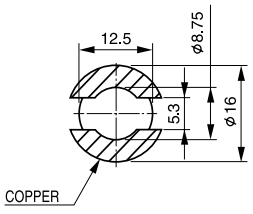
WBS3800



WBS3801



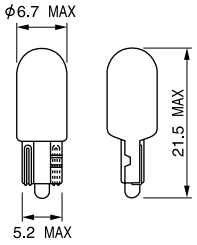
基板取付穴
BOARD HOLE DIMENSION



ウエッジベースランプ

T6.5 ウエッジベースランプ　T-2 WEDGE BASE LAMPS

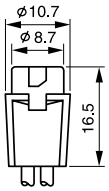
T6.5mm (T-2) (BASE W2.2×5.2d)



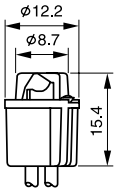
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
7.0	410	1.83	23.0	900	450	C-2V	A7801		6V3W
7.5	200	1.00	12.5	2,000	1,000	C-2V	A7800		6V1.7W
13.5	150	0.95	12.0	2,000	1,000	C-2V	A7827	61220	12V2W
14.0	100	0.72	9.0	2,000	1,000	C-2V	A7825	61410	14V1.4W
14.0	140	0.64	8.0	10,000	5,000	C-2V	A7826		14V2W
14.0	140	0.80	10.0	4,000	2,000	C-2V	A7828	61420	14V2W
14.0	214	1.20	15.0	10,000	5,000	C-2V	A7824	61431	14V3WL
14.0	214	1.83	23.0	1,000	500	C-2V	A7823N	61430	14V3W
14.4	120	1.00	12.5	2,000	1,000	C-2V	A7822N	61210	12V1.7W
14.4	120	1.00	12.5	2,000	1,000	C-2F	A7838		12V1.7W
28.0	50	0.72	9.0	2,000	1,000	C-2F	A7870		24V1.4W
28.0	110	1.20	15.0	10,000	5,000	C-2F	A7873		24V3WL
28.0	110	1.83	23.0	1,000	500	C-2F	A7871	62430	24V3W

T6.5 ウエッジベースランプ用ソケット　SOCKET FOR T-2 WEDGE BASE LAMPS

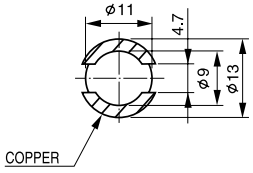
WBS6006



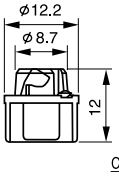
WBS6200



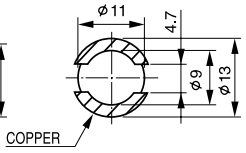
基板取付穴
BOARD HOLE DIMENSION



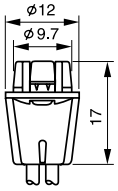
WBS6018



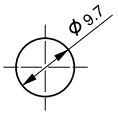
基板取付穴
BOARD HOLE DIMENSION



WBS6300

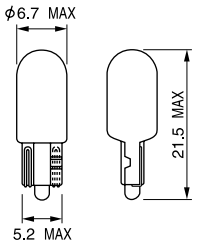


基板取付穴
BOARD HOLE DIMENSION



T6.5 ガス入りウエッジベースランプ　T-2 GAS FILLED WEDGE BASE LAMPS

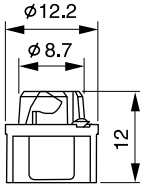
T6.5mm (T-2) (BASE W2.2×5.2d) GAS FILLED LAMPS



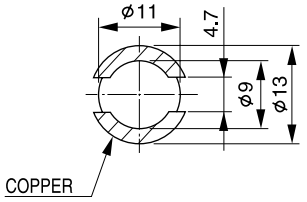
DESIGN		LUMINOUS FLUX		COLOR TEMP.	AVG LIFE	FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT				DC				
V	mA	M.S.C.P.	ℓ m	K	hrs.				
9.0	333	1.35	17.0	2,400	7,200	C-2V	A7803		9V3WX
14.0	180	1.35	17.0	2,500	1,000	C-2V		61425X-1	14V2.5WX
14.0	214	2.07	26.0	2,600	1,000	C-2V		61430X-1	14V3WX
14.0	214	1.83	23.0	2,550	2,000	C-2V	A7832	61430X-2	14V3WX
14.0	214	2.15	27.0	2,620	1,500	C-2V	A7830		

T6.5 ガス入りウエッジベースランプ用ソケット　SOCKET FOR T-2 GAS FILLED WEDGE BASE LAMPS

WBS6019

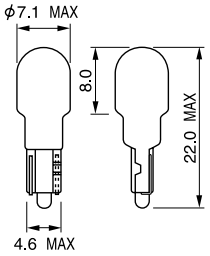


基板取付穴
BOARD HOLE DIMENSION



T7 ウエッジベースランプ　T-2 1/4 WEDGE BASE LAMPS

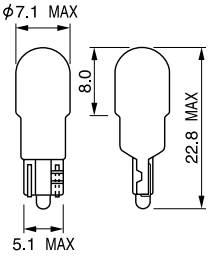
T7.0mm (T-2 1/4) I. E. C. TYPE (BASE W2×4.6d)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
13.5	150	0.95	12.0	2,000	1,000	C-2V	A7921	71220	12V2W
14.0	220	1.87	23.5	1,000	500	C-2V	A7920	71430	14V3W
14.0	214	1.20	15.0	10,000	5,000	C-2V	A7926	71431	14V3WL
14.0	220	1.67	21.0	3,000	1,500	C-2F	A7925		14V3.1W
14.4	120	1.00	12.5	2,000	1,000	C-2V	A7924	71210	12V1.7W
28.0	50	0.72	9.0	2,000	1,000	C-2F	A7971	72410	24V1.2W
28.0	70	0.72	9.0	3,000	1,500	C-2F	A7972	72420	24V2W
28.0	79	0.64	8.0	14,000	7,000	C-2F	A7973		24V2.2W
28.0	110	1.83	23.0	1,000	500	C-2F	A7970	72430	24V3W

SOCKET FOR T-2 1/4 WEDGE BASE LAMPS (I.E.C. TYPE)	T5 ウエッジベースランプ用ソケットをご使用ください。 Please use the SOCKET for T-1 1/2 WEDGE BASE LAMPS.

T7.0mm (T-2 1/4) S. A. E. TYPE (BASE W2.2×5.1d)

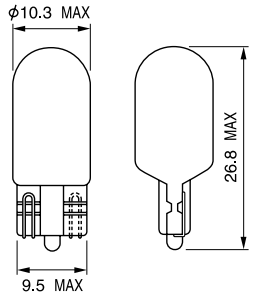


DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
14.0	214	1.20	15.0	10,000	5,000	C-2V	A9221		
14.0	220	1.70	21.5	1,500	750	C-2F		103	
14.4	120	0.70	8.8	8,000	4,000	C-2V	A9220		
14.4	120	1.00	12.5	2,000	1,000	C-2V		936	

SOCKET FOR T-2 1/4 WEDGE BASE LAMPS (S.A.E. TYPE)	T5.6 ウエッジベースランプ用ソケットをご使用ください。 Please use the SOCKET for T-1 3/4 WEDGE BASE LAMPS.

T10 ガス入りウエッジベースランプ　T-3 1/4 GAS FILLED WEDGE BASE LAMPS

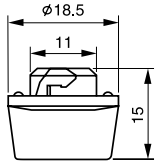
T10.0mm (T-3 1/4) (BASE W2.1×9.5d) GAS FILLED LAMPS



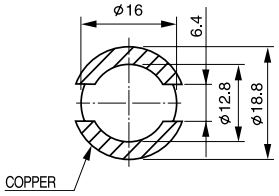
DESIGN		LUMINOUS FLUX		COLOR TEMP.	AVG LIFE	FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT				DC				
V	mA	M.S.C.P.	ℓ m	K	hrs.				
13.5	370	4.9	62.0	2,700	500	C-2V	A7735	1250X	XENON
13.5	370	4.4	55.0	2,650	1,000	C-2V		1250X-1	XENON
13.5	444	6.8	85.0	2,750	500	C-2R		1600X	XENOM
14.0	240	2.0	25.0	2,500	3,000	C-2V	A7742	1434X-3	XENON
28.0	180	4.0	50.0	2,650	500	C-2F	A7782		KRYPTON

T10 ガス入りウエッジベースランプ用ソケット　SOCKET FOR T-3 1/4 GAS FILLED WEDGE BASE LAMPS

WBS2006

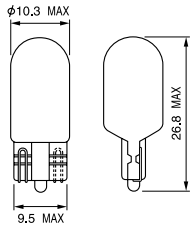


基板取付穴
BOARD HOLE DIMENSION



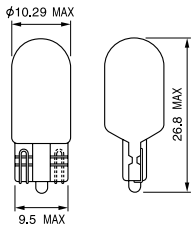
T10 ウエッジベースランプ&ソケット　T-3 1/4 WEDGE BASE LAMPS AND SOCKET

T10.0mm (T-3 1/4) (BASE W2.1×9.5d)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
6.0	333	0.76	9.5	7,000	3,500	C-2V		516	6V2W
6.3	150	0.34	4.3	5,000	2,500	C-2R		159	
6.3	250	0.65	8.2	5,000	2,500	C-2R		259	
7.0	410	2.00	25.0	900	450	C-2V	A7703N		6V3W
12.0	100	0.40	5.0	5,000	2,500	C-2V		014	12V1.2W
13.0	192	1.00	12.5	6,000	3,000	C-2V	A7743	510	12V2.2W
13.0	330	3.00	38.0	1,500	1,000	C-2V		192	
13.5	163	1.03	13.0	2,000	1,000	C-2V		509	12V2W
13.5	370	3.18	40.0	1,400	700	C-2V	A7734		12V5WL
13.5	370	4.00	50.0	300	200	C-2V	A7725	010	12V5W
14.0	80	0.30	3.8	15,000	7,500	C-2F		658	
14.0	140	1.27	16.0	750	500	C-2V	A7731	015	12V2W
14.0	190	0.80	10.0	10,000	5,000	C-2F	A7740		14V2.7WL
14.0	190	1.00	12.5	8,000	4,000	C-2F	A7720U	161	
14.0	240	1.19	15.0	20,000	10,000	C-2F	A7730		14V3.4W
14.0	240	1.43	18.0	10,000	5,000	C-2V	A7733		14V3.4WL
14.0	240	2.00	25.0	1,500	1,000	C-2V	A7721	158	12V3.4W
14.0	270	2.00	25.0	5,000	2,500	C-2F	A7722S	194	
14.0	330	2.00	25.0	10,000	5,000	C-2F		193	
14.0	350	3.00	38.0	2,000	1,500	C-2F	A7728	168	12V5W
14.4	120	1.00	12.5	2,000	1,000	C-2V	A7729	016	12V1.7W
24.0	83	0.52	6.5	10,000	5,000	C-2F		011	24V2W
28.0	60	0.63	7.9	5,000	2,500	C-2F		656	
28.0	70	0.95	12.0	2,000	1,000	C-2F		017	24V1.5W
28.0	80	0.63	7.9	7,500	3,700	C-2F		657	
28.0	95	0.80	10.0	10,000	5,000	C-2F	A7774E	013	28V2.5W
28.0	100	1.35	17.0	2,000	1,000	C-2F		400	28V2.8W
28.0	110	1.60	20.0	2,000	1,000	C-2F	A7773	012	24V3W
28.0	143	1.75	22.0	2,000	1,000	C-2F		505	24V3W
28.0	170	3.00	38.0	1,500	1,000	C-2F		464	
28.0	250	4.00	50.0	300	200	C-2F	A7775E	507	24V5W

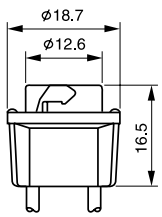
T10.0mm (T-3 1/4) (BASE W2.1×9.5d)　ECE認証取得品種　ECE APPROVED



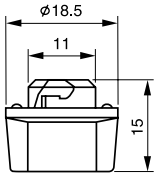
DESIGN		LUMINOUS FLUX		COLOR TEMP.	AVG LIFE	FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT				DC				
V	mA	M.S.C.P.	ℓ m	K	hrs.				
13.5	370	4.00	50.0	2,750	1,000	C-2R	A7758EC	W5W-50A1	ARGON
13.5	370	4.00	50.0	2,660	3,000	C-2R	A7757EC	W5W-50K3	KRYPTON
13.5	370	4.00	50.0	2,600	6,000	C-2R	A7756EC	W5W-50X6	XENON
13.5	220	1.75	22.0	—	1,500	C-2V	A7745EC	W3W	VACUUM

T10 ウエッジベースランプ用ソケット　SOCKET FOR T-3 1/4 WEDGE BASE LAMPS

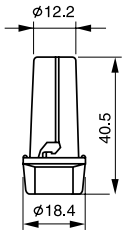
WBS1008



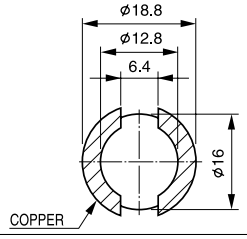
WBS2017



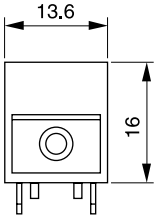
WBS2100V



基板取付穴
BOARD HOLE DIMENSION

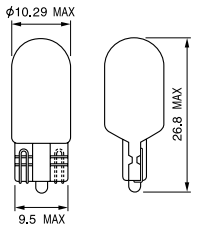


WBS1010T



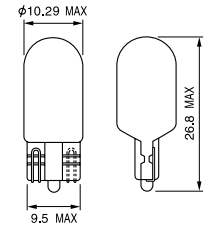
T10 ウエッジベースランプ　T-3 1/4 WEDGE BASE LAMPS

T10.0mm (T-3 1/4) (BASE W2.1×9.5d) COLORED WEDGE BASE LAMPS
POSITIONING LAMP USED WITH HIGH BRIGHT HEAD LIGHT



DESIGN		LUMINOUS FLUX		COLOR TEMP.	AVG LIFE	FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT				DC				
V	mA	M.S.C.P.	ℓ m	K	hrs.				
13.5	370	4.0	50.0	3,050	1,000	C-2R		W5W-B50K1	KRYPTON
13.5	370	4.0	50.0	3,000	2,000	C-2R	A7756BECPF	W5W-B50X2	XENON

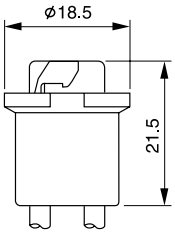
T10.0mm (T-3 1/4) (BASE W2.1×9.5d) COLORED WEDGE BASE LAMPS
CADMIUM FREE NATURAL AMBER COLOR



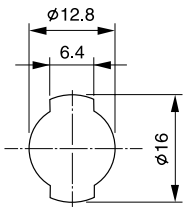
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
13.5	370	2.4	30.0	1,500	1,000	C-2R	A7758AECPF	WY5W-NA50A1	ARGON
13.5	370	2.4	30.0	4,500	3,000	C-2R		WY5W-NA50K3	KRYPTON
13.5	370	2.4	30.0	9,000	6,000	C-2R		WY5W-NA50X6	XENON
14.0	270	1.2	15.0	5,000	2,500	C-2F		194NA	VACUUM
14.0	350	1.8	23.0	2,000	1,500	C-2F		168NA	VACUUM

T10 ウエッジベースランプ用ソケット　SOCKET FOR T-3 1/4 WEDGE BASE LAMPS

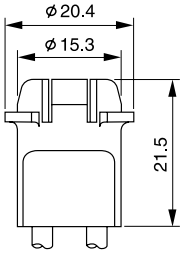
WBS1006



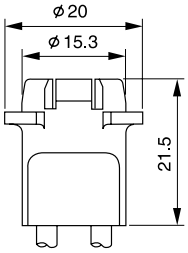
基板取付穴
BOARD HOLE DIMENSION



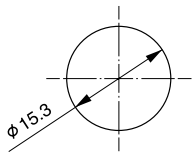
WBS1005



WBS1015



基板取付穴
BOARD HOLE DIMENSION

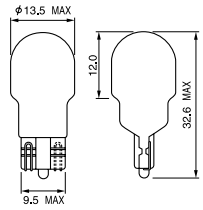


ウエッジベースランプ

エクステリア用光源
Various types of automotive exterior lamps.

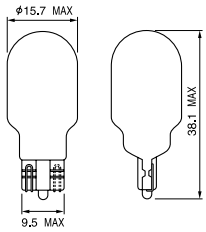
T13～T20 ウエッジベースランプ　T-4～T-6 1/2 WEDGE BASE LAMPS

T13.0mm (T-4) (BASE W2.1×9.5d)



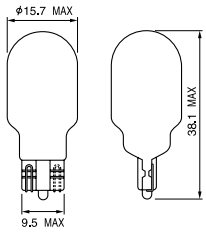
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT			AC	DC				
V	A	M.S.C.P.	ℓ m	hrs.	hrs.				
13.0	0.58	6.0	75	1,000	750	C-2V	A3920	31270	12V7.5W
13.5	0.59	4.0	50	3,000	2,000	C-2V		31280	12V8W
13.5	0.74	10.0	125	300	200	C-2V	A3921	31210	12V10W

T15.0mm (T-5) (BASE W2.1×9.5d) XENON GAS FILLED LAMPS



DESIGN		LUMINOUS FLUX		COLOR TEMP.	AVG LIFE	FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT				DC				
V	A	M.S.C.P.	ℓ m	K	hrs.				
12.8	1.40	21.0	264	2,700	3,000	C-2R		921X-3	
24.0	0.30	5.5	69	2,540	2,000	C-2F		2472X-2	

T15.0mm (T-5) (BASE W2.1×9.5d) COLORED WEDGE BASE LAMPS CADMIUM FREE NATURAL AMBER COLOR



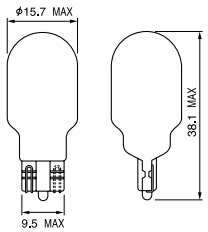
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT			AC	DC				
V	A	M.S.C.P.	ℓ m	hrs.	hrs.				
13.5	0.69	2.4	30.0	7,500	5,000	C-2F		904NA	
13.5	0.54	1.5	18.8	15,000	10,000	C-2F		916NA	

T20mm (T-6 1/2) COLORED WEDGE BASE LAMPS CADMIUM FREE NATURAL AMBER COLOR

REFER TO FIGURE	DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
	VOLTAGE	CURRENT			VOLTAGE	DC				
	V	A	M.S.C.P.	ℓ m	V	hrs.				
FIG. 1	13.5	1.85	22.3	280	14.0	300	C-6	A5921A	12V21WNA	
FIG. 1	12.8	2.10	23.9	300	12.8	1,200	C-6		12V27WNA	
FIG. 2	13.5	1.85	20.7	260	14.0	500	C-6	A4923A	12V21/5WNA	
	13.5	0.44	1.6	20	14.5	1,000	C-6			
FIG. 2	12.8	2.10	23.9	300	12.8	1,200	C-6		12V27/8WNA	
	14.0	0.59	2.2	28	14.0	5,000	C-6			

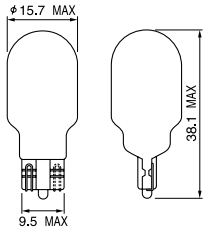
T15. T20 ウエッジベースランプ　T-5. T-6 1/2 WEDGE BASE LAMPS

T15.0mm (T-5) (BASE W2.1×9.5d)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT			AC	DC				
V	A	M.S.C.P.	ℓ m	hrs.	hrs.				
6.0	0.62	3.8	48	30	30	C-2R		909	
6.0	1.5	12.0	150	50	50	C-2R		908	
12.8	0.56	6.5	82	750	500	C-2R		918	
12.8	0.86	12.5	157	750	500	C-2R		923	
12.8	0.98	15.0	188	300	200	C-2R	A3720	922	
12.8	1.00	12.0	150	1,500	1,000	C-2R	A3722	912	
12.8	1.20	10.0	125	1,800	1,200	C-2F		917	
12.8	1.40	21.0	264	1,500	1,000	C-2R		921	
13.0	0.69	6.0	75	1,500	1,000	C-2F		906	
13.5	0.69	4.0	50	7,500	5,000	C-2F		904	
24.0	0.30	4.0	50	2,000	1,500	C-2F			24V7.2W
24.0	0.63	14.0	176	2,000	1,500	C-2F			24V15W

T15.0mm (T-5) (BASE W2.1×9.5d)　ECE認証取得品種　ECE APPROVED



DESIGN		LUMINOUS FLUX		COLOR TEMP.	AVG LIFE	FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
VOLTAGE	CURRENT				DC				
V	A	M.S.C.P.	ℓ m	K	hrs.				
13.5	1.44	24.7	310	3050	1,000	C-2R	A3728EC	W16W-310A	ARGON
13.5	1.44	24.7	310	2950	1,500	C-2R		W16W-310K	KRYPTON
13.5	1.44	24.7	310	2900	2,000	C-2R		W16W-310X	XENON

T20.0mm (T-6 1/2)

REFER TO FIGURE	DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
	VOLTAGE	CURRENT			VOLTAGE	DC				
	V	A	M.S.C.P.	ℓ m	V	hrs.				
FIG. 1	12.8	2.10	32.0	402	12.8	1,200	C-6		7441	12V27W
FIG. 1	13.5	1.85	36.6	460	14.0	300	C-6	A5920	7440	12V21W
FIG. 2	12.8	2.1	32.0	402	12.8	1,200	C-6		7442	12V27/8W
	14.0	0.59	3.0	38	14.0	5,000	C-6			
FIG. 2	13.5	1.85	35.0	440	14.0	500	C-6	A4920	7443	12V21/5W
	13.5	0.44	2.8	35	14.5	1,000	C-6			
FIG. 2	13.5	1.85	35.0	440	14.0	500	C-6	A4921		12V21/5WH
	13.5	0.37	3.2	40	14.5	300	C-6			

T20.0mm (T-6 1/2)　ECE認証取得品種　ECE APPROVED

REFER TO FIGURE	DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.	REMARKS
	VOLTAGE	CURRENT			VOLTAGE	DC				
	V	A	M.S.C.P.	ℓ m	V	hrs.				
FIG. 1	13.5	1.85	36.6	460	14.0	300	C-6	A5921EC	W21W	
FIG. 2	13.5	1.85	35.0	440	14.0	500	C-6	A4923EC	W21/5W	
	13.5	0.44	2.8	35	14.5	1,000	C-6			

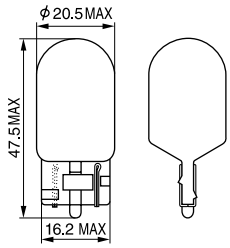


FIG. 1

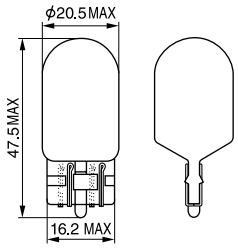
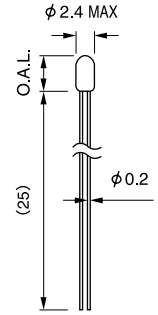


FIG. 2

サブミニチュアランプ ワイヤーターミナル

T2.4 サブミニチュアランプ ワイヤーターミナル　T-3/4 SUB MINIATURE LAMPS WIRE TERMINAL

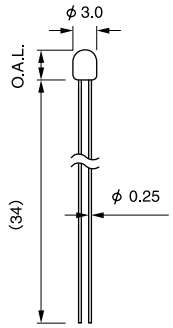
T2.4mm (T-3/4)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
4.0	75	0.12	1.5	1,000	1,000	C-2R	5.0MAX		
5.0	60	0.05	0.63	20,000	10,000	C-2R	5.0MAX		
5.0	75	0.088	1.1	20,000	10,000	C-2R	5.0MAX		HRS-6833A
5.0	115	0.15	1.9	20,000	10,000	C-2R	5.0MAX		HRS-7153A
6.0	65	0.10	1.25	10,000	5,000	C-2R	5.0MAX		
6.0	70	0.13	1.6	10,000	5,000	C-2R	5.0MAX		
6.0	70	0.18	2.2	10,000	5,000	C-2R	5.0MAX		

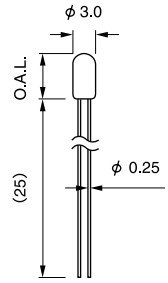
T3 サブミニチュアランプ ワイヤーターミナル　T-1 SUB MINIATURE LAMPS WIRE TERMINAL

T3.0mm (T-1) SHORT TYPE



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	60	0.05	0.63	20,000	10,000	C-2R	3.81MAX		
5.0	115	0.15	1.9	20,000	10,000	C-2R	3.81MAX		

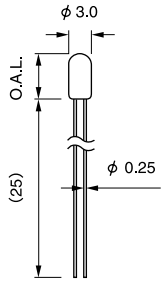
T3.0mm (T-1)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	60	0.05	0.63	20,000	10,000	C-2R	6.5MAX		HRS-683A
5.0	75	0.088	1.1	20,000	10,000	C-2R	6.5MAX		HRS-713A
5.0	115	0.15	1.9	20,000	10,000	C-2R	6.5MAX		HRS-715A
5.5	125	0.28	3.5	10,000	5,000	C-2R	6.5MAX		
6.0	70	0.15	1.9	10,000	5,000	C-2R	6.5MAX		
8.0	50	0.10	1.2	10,000	5,000	C-2V	6.5MAX		
8.0	70	0.135	1.7	10,000	5,000	C-2F	6.5MAX		
8.0	105	0.24	3.0	10,000	5,000	C-2V	6.5MAX		
9.0	75	0.20	2.5	10,000	5,000	C-2V	6.5MAX		
10.0	60	0.15	1.9	10,000	5,000	C-2F	6.5MAX		
12.0	60	0.15	1.9	10,000	5,000	C-2F	6.5MAX		HRS-7219A
14.0	40	0.25	1.0	6,000	3,000	C-2F	(7.5)	A9586	
14.0	40	0.12	1.5	10,000	5,000	C-2F	(7.5)	A9529	
14.0	40	0.145	1.8	6,000	3,000	C-2F	6.5MAX		HRS-3071A
14.0	40	0.16	2.0	10,000	5,000	C-2F	(7.5)	A9516	
14.0	50	0.16	2.0	10,000	5,000	C-2F	(6.0)	A9522	
14.0	60	0.20	2.5	10,000	5,000	C-2F	6.5MAX		
14.0	60	0.20	2.5	10,000	5,000	C-2F	(7.5)	A9526	
14.0	60	0.25	3.2	6,000	3,000	C-2F	(7.5)	A9597	
14.0	60	0.36	4.5	1,000	500	C-2F	(7.5)	A9521	
14.0	70	0.28	3.5	5,000	2,500	C-2F	(7.5)	A95119	
16.0	50	0.20	2.5	10,000	5,000	C-2F	6.5MAX		HRS-3140A
16.0	65	0.24	3.0	10,000	5,000	C-2F	6.5MAX		

T3 サブミニチュアランプ ワイヤーターミナル　T-1 SUB MINIATURE LAMPS WIRE TERMINAL

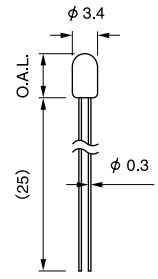
T3.0mm (T-1) RHENIUM TUNGSTEN LAMPS



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	115	0.15	1.9	20,000	15,000	C-2R	6.5MAX		
5.0	115	0.15	1.9	20,000	15,000	C-2R	5.25MAX		
6.0	80	0.16	2.0	10,000	8,000	C-2R	5.25MAX		
8.0	60	0.13	1.6	10,000	6,000	C-2V	5.25MAX		
8.0	60	0.13	1.6	10,000	6,000	C-2V	5.8MAX		
8.0	70	0.14	1.7	10,000	6,000	C-2V	5.25MAX		
8.0	85	0.18	2.2	10,000	6,000	C-2V	6.5MAX		
8.0	85	0.18	2.2	10,000	6,000	C-2V	5.8MAX		
8.0	85	0.18	2.2	10,000	6,000	C-2V	5.25MAX		
8.0	105	0.24	3.0	10,000	6,000	C-2V	6.5MAX		
8.0	105	0.24	3.0	10,000	6,000	C-2V	5.25MAX		
9.0	75	0.21	2.6	10,000	5,000	C-2V	6.5MAX		
9.0	75	0.21	2.6	10,000	5,000	C-2V	5.8MAX		
9.0	85	0.23	2.9	10,000	6,000	C-2V	6.5MAX		
9.0	85	0.23	2.9	10,000	6,000	C-2V	5.25MAX		
9.0	100	0.28	3.5	10,000	6,000	C-2V	5.25MAX		
10.0	80	0.14	1.8	10,000	6,000	C-2F	6.5MAX		
12.0	60	0.15	1.9	10,000	6,000	C-2F	6.5MAX		
12.0	60	0.15	1.9	10,000	6,000	C-2F	5.25MAX		
14.0	40	0.14	1.8	10,000	5,000	C-2F	6.5MAX		
14.0	40	0.14	1.8	10,000	5,000	C-2F	5.8MAX		
14.0	40	0.14	1.8	10,000	5,000	C-2F	5.25MAX		
14.0	50	0.16	2.2	10,000	5,000	C-2F	6.5MAX		
14.0	60	0.215	2.7	10,000	5,000	C-2F	5.25MAX		
14.0	65	0.20	2.5	10,000	6,000	C-2F	6.5MAX		

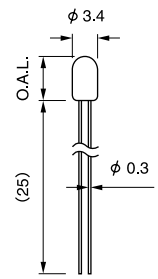
T3.4 サブミニチュアランプ ワイヤーターミナル　T-1 SUB MINIATURE LAMPS WIRE TERMINAL

T3.4mm (T-1)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
14.0	70	0.32	4.0	5,000	2,500	C-2F	(6.5)	A95103	
14.0	80	0.36	4.5	4,000	2,000	C-2F	(6.5)	A9504	
14.0	80	0.36	4.5	4,000	2,000	C-2F	(9.5)	A9506	
14.0	80	0.52	6.5	1,000	500	C-2F	(6.5)	A9565	
14.0	80	0.44	5.5	2,000	1,000	C-2F	(6.5)	A95115	
28.0	40	0.30	3.8	10,000	5,000	C-2F	(8.0)	A9575	

T3.4mm (T-1) RHENIUM TUNGSTEN LAMPS

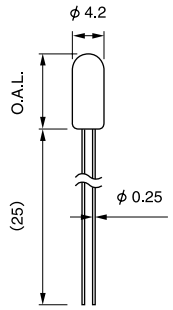


DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	50	0.04	0.5	10,000	7,000	C-2R	6.5MAX		
8.0	70	0.14	1.7	10,000	6,000	C-2V	6.5MAX		
14.5	65	0.22	2.8	10,000	6,000	C-2F	6.5MAX		

サブミニチュアランプ ワイヤーターミナル

T4.2 サブミニチュアランプ ワイヤーターミナル　T-1 1/4 SUB MINIATURE LAMPS WIRE TERMINAL

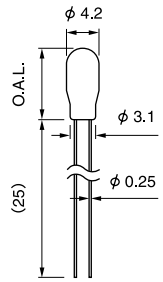
T4.2mm (T-1 1/4)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	115	0.15	1.9	20,000	10,000	C-2R	11.0MAX		
5.0	200	0.30	3.8	10,000	5,000	C-2R	11.0MAX		
7.5	95	0.223	2.8	10,000	5,000	C-2V	11.0MAX		
8.0	100	0.20	2.5	10,000	5,000	C-2V	11.0MAX		HRS-4110A
8.0	150	0.40	5.0	20,000	10,000	C-2V	11.0MAX		HRS-4210A
8.0	150	0.40	5.0	20,000	10,000	C-2F	(10.0)	A9600	
9.0	125	0.366	4.6	10,000	5,000	C-2V	11.0MAX		
10.0	85	0.20	2.5	10,000	5,000	C-2V	11.0MAX		
12.0	50	0.16	2.0	10,000	5,000	C-2V	11.0MAX		
12.0	60	0.20	2.5	10,000	5,000	C-2V	11.0MAX		
12.0	100	0.32	4.0	10,000	5,000	C-2F	11.0MAX		HRS-4160A
14.0	40	0.12	1.5	10,000	5,000	C-2F	(10.0)	A9653	
14.0	50	0.16	2.0	10,000	5,000	C-2F	(10.0)	A9620	HRS-4180A
14.0	60	0.20	2.5	10,000	5,000	C-2F	(8.5)	A9659	
14.0	60	0.40	5.0	2,000	1,000	C-2F	(10.0)	A9693	
14.0	65	0.16	2.0	10,000	5,000	C-2F	11.0MAX		
14.0	80	0.28	3.5	10,000	5,000	C-2F	11.0MAX		HRS-4200A
14.0	80	0.30	3.8	10,000	5,000	C-2V	(10.0)	A7330	
14.0	80	0.30	3.8	10,000	5,000	C-2F	(10.5)	A9362	
14.0	100	0.48	6.0	10,000	5,000	C-2F	(10.0)	A9679	
14.0	100	0.56	7.0	4,000	2,000	C-2F	(9.5)	A9643	
14.0	100	0.72	9.0	2,000	1,000	C-2F	(13.5)	A9663	
14.0	110	0.80	10.0	2,000	1,000	C-2F	(10.0)	A9666	
14.0	100	0.50	6.3	10,000	5,000	C-2F	11.0MAX		
16.0	50	0.16	2.0	10,000	5,000	C-2F	11.0MAX		
16.0	100	0.64	8.0	5,000	3,000	C-2F	11.0MAX		
28.0	40	0.20	3.8	6,000	3,000	C-2F	(10.5)	A9627	
28.0	50	0.72	9.0	2,000	1,000	C-2F	(10.5)	A9672	

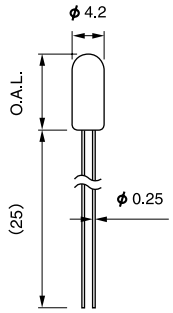
T4.2 サブミニチュアランプ ワイヤーターミナル　　T-1 1/4 SUB MINIATURE LAMPS WIRE TERMINAL

T4.2mm (T-1 1/4)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
8.0	150	0.40	5.0	20,000	10,000	C-2F	(11.3)	A9609P	
14.0	80	0.30	3.8	10,000	5,000	C-2F	(11.3)	A9560P	
14.0	80	0.36	4.5	5,000	2,500	C-2F	(11.3)	A9631P	
14.0	80	0.52	6.5	2,000	1,000	C-2F	(9.0)	A9559P	
14.0	100	0.48	6.3	6,000	3,000	C-2F	(11.3)	A9699P	
14.0	100	0.72	9.0	2,000	1,000	C-2F	(11.3)	A9660P	
14.0	110	0.80	10.0	2,000	1,000	C-2F	(11.3)	A9667P	
28.0	70	0.40	5.0	4,000	2,000	C-2F	(13.0)	A9695P	

T4.2mm (T-1 1/4) RHENIUM TUNGSTEN LAMPS

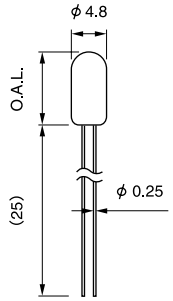


DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	200	0.30	3.8	30,000	15,000	C-2R	7.0MAX		
7.5	90	0.223	2.8	10,000	6,000	C-2V	11.0MAX		
8.0	80	0.16	2.0	24,000	12,000	C-2V	11.0MAX		
8.0	100	0.20	2.5	10,000	6,000	C-2V	11.0MAX		
8.0	150	0.40	5.0	24,000	12,000	C-2V	11.0MAX		
9.0	125	0.366	4.6	10,000	6,000	C-2V	11.0MAX		
10.0	85	0.20	2.5	10,000	6,000	C-2V	11.0MAX		
12.0	100	0.32	4.0	10,000	6,000	C-2F	11.0MAX		
14.0	60	0.24	3.0	10,000	6,000	C-2F	11.0MAX		
14.0	100	0.40	5.0	10,000	5,000	C-2F	11.0MAX		
14.0	100	0.50	6.3	10,000	5,000	C-2F	11.0MAX		

サブミニチュアランプ ワイヤーターミナル

T4.8 サブミニチュアランプ ワイヤーターミナル　T-1 1/2 SUB MINIATURE LAMPS WIRE TERMINAL

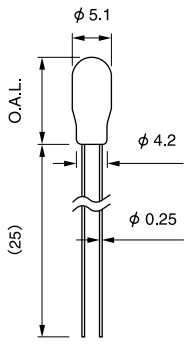
T4.8mm (T-1 1/2)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
6.0	100	0.16	2.0	10,000	5,000	C-2V	11.0MAX		HRS-5030A
6.3	150	0.24	3.0	10,000	5,000	C-2V	11.0MAX		
8.0	80	0.08	1.0	10,000	5,000	C-2V	11.0MAX		
8.0	100	0.20	2.5	10,000	5,000	C-2V	11.0MAX		HRS-5072A
8.0	150	0.40	5.0	10,000	5,000	C-2V	11.0MAX		HRS-5073A
10.0	100	0.32	4.0	10,000	5,000	C-2V	11.0MAX		
12.0	60	0.16	2.0	10,000	5,000	C-2F	11.0MAX		
13.5	90	0.60	7.5	2,000	1,000	C-2V	(12.0)	A9716	
13.5	150	0.95	12.0	2,000	1,000	C-2F	(9.0)	A9764	
13.5	150	0.95	12.0	2,000	1,000	C-2F	(10.3)	A9768	
14.0	50	0.16	2.0	10,000	5,000	C-2F	(10.3)	A9750	
14.0	80	0.30	3.8	10,000	5,000	C-2F	(10.3)	A9711	
14.0	80	0.30	3.8	10,000	5,000	C-2F	(12.0)	A9715	
14.0	100	0.37	4.6	10,000	5,000	C-2F	(11.0)	A9828	
14.0	100	0.50	6.3	10,000	5,000	C-2F	11.0MAX		
14.0	100	0.72	9.0	2,000	1,000	C-2F	(10.3)	A9721	
14.0	100	0.72	9.0	2,000	1,000	C-2F	(16.0)	A9759	
14.0	110	0.80	10.0	2,000	1,000	C-2F	(10.3)	A9710	
14.0	140	0.64	8.0	10,000	5,000	C-2F	(10.5)	A9743	
16.0	80	0.44	5.5	10,000	5,000	C-2F	11.0MAX		HRS-5160A
28.0	50	0.72	9.0	2,000	1,000	C-2F	(10.3)	A9771	
28.0	60	0.32	4.0	10,000	5,000	C-2F	11.0MAX		HRS-5190A
28.0	65	0.64	8.0	10,000	5,000	C-2F	(10.3)	A9700	

T5.1 サブミニチュアランプ ワイヤーターミナル　T-1 3/4 SUB MINIATURE LAMPS WIRE TERMINAL

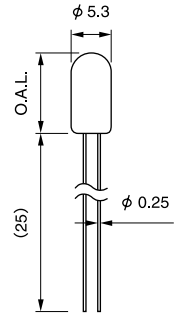
T5.1mm (T-1 3/4)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
14.0	80	0.28	3.5	10,000	5,000	C-2F	12.0MAX		
14.0	125	0.70	8.8	4,000	2,000	C-2F	12.0MAX		

T5.3 サブミニチュアランプ ワイヤーターミナル　T-1 3/4 SUB MINIATURE LAMPS WIRE TERMINAL

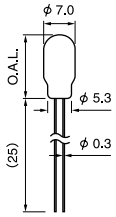
T5.3mm (T-1 3/4)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
6.0	100	0.16	2.0	10,000	5,000	C-2V	11.5MAX		HRS-6050A
12.0	40	0.12	1.5	6,000	3,000	C-2V	11.5MAX		
14.0	40	0.12	1.5	6,000	3,000	C-2F	11.5MAX		
14.0	100	0.50	6.3	10,000	5,000	C-2F	11.5MAX		
18.0	60	0.38	4.8	6,000	3,000	C-2F	11.5MAX		
28.0	40	0.30	3.8	5,000	3,000	C-2F	11.5MAX		
28.0	60	0.32	4.0	10,000	5,000	C-2F	11.5MAX		HRS-6150A
28.0	80	0.64	8.0	5,000	3,000	C-2F	11.5MAX		
28.0	100	1.19	15.0	3,000	2,000	C-2F	11.5MAX		

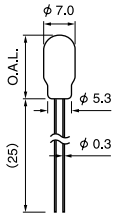
T7 サブミニチュアランプ ワイヤーターミナル　T-2 1/4 SUB MINIATURE LAMPS WIRE TERMINAL

T7.0mm (T-2 1/4)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
28.0	110	1.59	20.0	1,000	1,000	C-2F	12.0MAX		

T7.0mm (T-2 1/4)

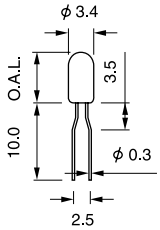


DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
28.0	80	0.64	8.0	5,000	3,000	C-2F	15.0MAX		HRS-7010A
28.0	110	1.59	20.0	1,000	1,000	C-2F	15.0MAX		HRS-7020A

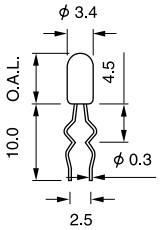
サブミニチュアランプ バイピン型　SUB MINIATURE LAMPS BI-PIN TYPE

T3.4mm (T-1)

A TYPE



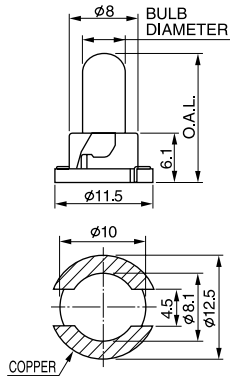
B TYPE



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	60	0.05	0.63	20,000	10,000	C-2R	7.0MAX		HRB-683A
5.0	115	0.15	1.9	20,000	10,000	C-2R	7.0MAX		HRB-715A
8.0	105	0.28	3.5	10,000	5,000	C-2V	7.0MAX		
12.0	60	0.15	1.9	10,000	5,000	C-2F	7.0MAX		
14.0	40	0.14	1.8	6,000	3,000	C-2F	7.0MAX		
14.0	50	0.16	2.0	10,000	5,000	C-2F	7.0MAX		
14.0	60	0.20	2.5	10,000	5,000	C-2F	7.0MAX		
14.0	65	0.15	1.9	10,000	5,000	C-2F	7.0MAX		
16.0	40	0.14	1.8	6,000	3,000	C-2F	7.0MAX		
16.0	50	0.20	2.5	10,000	5,000	C-2F	7.0MAX		

サブミニチュアランプ&プラスチックベース

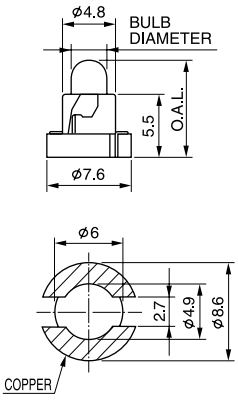
BASE NO. : TSS7006



基板取付穴
BOARD HOLE DIMENSION

DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.8	12.0	A9711	
14.0	100	3.72	9.0	2,000	1,000	C-2F	ϕ4.8	12.7	A9721	
14.0	140	0.64	8.0	10,000	5,000	C-2F	ϕ4.8	12.2	A9743	
14.0	150	0.95	12.0	2,000	1,000	C-2F	ϕ4.8	12.2	A9768	
14.0	240	2.00	25.0	1,000	500	C-2F	ϕ7.0	19.2	A9921	
14.0	240	1.19	15.0	10,000	5,000	C-2F	ϕ7.0	19.2	A9924	
28.0	50	0.72	9.0	2,000	1,000	C-2F	ϕ4.8	12.2	A9771	

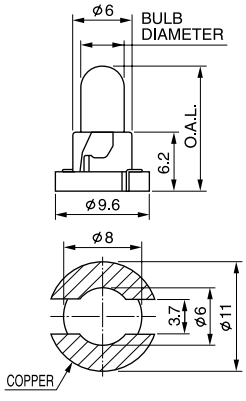
BASE NO. : TSS7007



基板取付穴
BOARD HOLE DIMENSION

DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	40	0.08	1.0	10,000	5,000	C-2F	ϕ3.0	9.5	A9569	
14.0	40	0.12	1.5	10,000	5,000	C-2F	ϕ3.0	9.5	A9529	
14.0	50	0.12	1.5	10,000	5,000	C-2F	ϕ3.0	8.0	A95118	
14.0	50	0.16	2.0	10,000	5,000	C-2F	ϕ3.0	9.5	A9520	
14.0	60	0.20	2.5	10,000	5,000	C-2F	ϕ3.0	9.5	A9526	
14.0	60	0.25	3.2	6,000	3,000	C-2F	ϕ3.0	8.0	A9508	
14.0	60	0.36	4.5	1,000	500	C-2F	ϕ3.0	11.5	A9554	
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	13.3	A9560P	
14.0	80	0.36	4.5	5,000	2,500	C-2F	ϕ4.2	13.3	A9631P	
14.0	100	0.72	9.0	2,000	1,000	C-2F	ϕ4.2	13.3	A9660P	

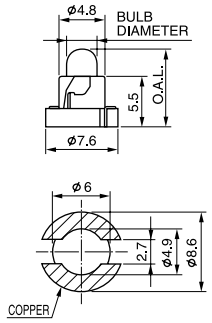
BASE NO. : TSS7008



基板取付穴
BOARD HOLE DIMENSION

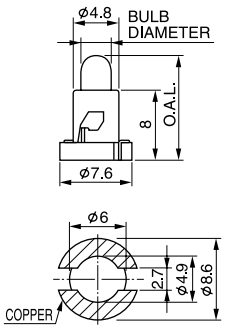
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
13.5	150	0.95	12.0	2,000	1,000	C-2F	ϕ4.8	12.2	A9736P	
14.0	50	0.16	2.0	10,000	5,000	C-2F	ϕ4.2	10.7	A9626	
14.0	60	0.20	2.5	10,000	5,000	C-2F	ϕ4.2	10.7	A9659	
14.0	60	0.40	5.0	2,000	1,000	C-2F	ϕ4.2	12.2	A9693	
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	12.7	A9632	
14.0	100	0.48	6.0	10,000	5,000	C-2F	ϕ4.2	11.2	A96126	
14.0	100	0.72	9.0	2,000	1,000	C-2F	ϕ4.2	12.2	A9625	
28.0	40	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	12.7	A9627	
28.0	50	0.72	9.0	2,000	1,000	C-2F	ϕ4.2	12.7	A9672	

BASE NO. : TSS7011



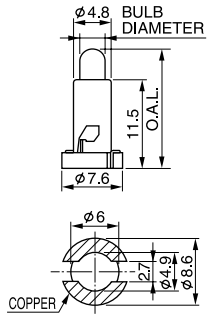
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	70	0.32	4.0	5,000	2,500	C-2F	ϕ3.4	8.5	A95103	
14.0	80	0.36	4.5	4,000	2,000	C-2F	ϕ3.4	8.5	A9504	
14.0	80	0.44	5.5	2,000	1,000	C-2F	ϕ3.4	8.5	A95115	
14.0	80	0.52	6.5	1,000	500	C-2F	ϕ3.4	8.5	A9565	
28.0	40	0.30	3.8	10,000	5,000	C-2F	ϕ3.4	10.0	A9575	

BASE NO. : TSS7013

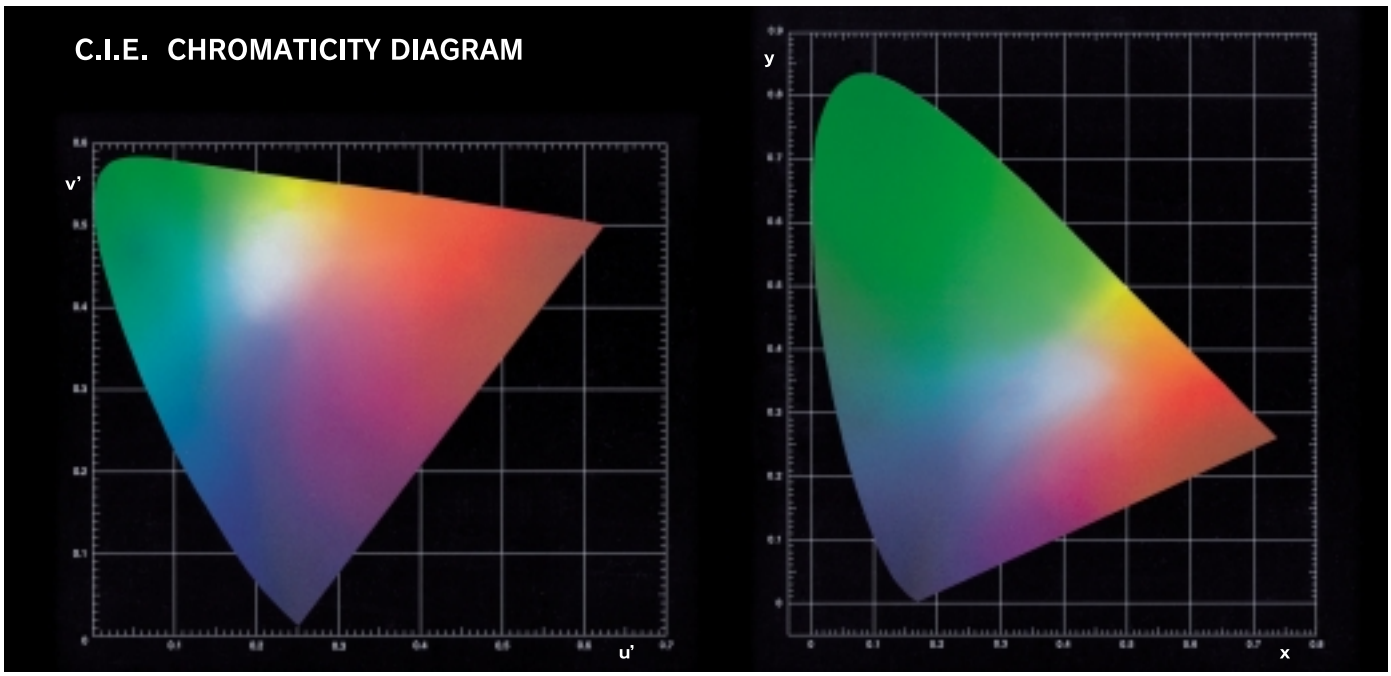


DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	40	0.08	1.0	10,000	5,000	C-2F	ϕ3.0	12.0	A9569	
14.0	60	0.20	2.5	10,000	5,000	C-2F	ϕ3.0	12.0	A9526	
14.0	60	0.25	3.2	6,000	3,000	C-2F	ϕ3.0	12.0	A9597	
14.0	100	0.50	6.3	6,000	3,000	C-2F	ϕ3.0	15.8	A9699P	

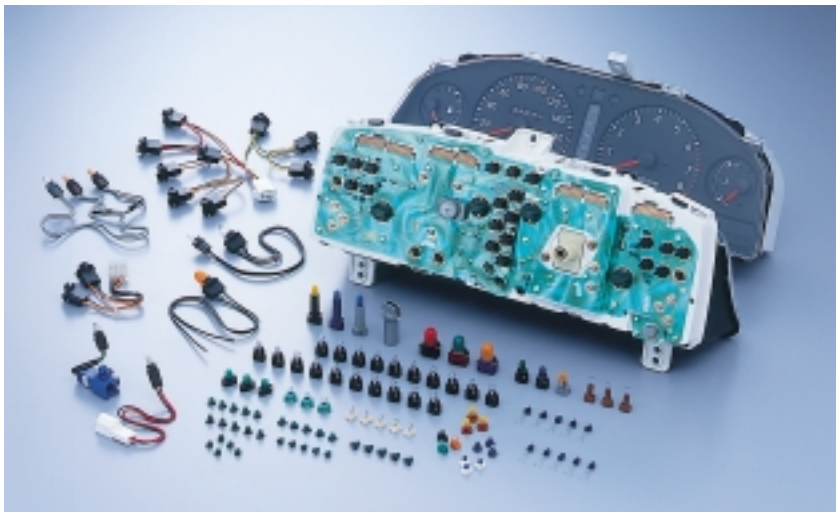
BASE NO. : TSS7014



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	40	0.12	1.5	10,000	5,000	C-2F	ϕ3.0	15.5	A9529	
14.0	50	0.16	2.0	10,000	5,000	C-2F	ϕ3.0	15.5	A9520	
14.0	60	0.20	2.5	10,000	5,000	C-2F	ϕ3.0	15.5	A9526	
14.0	80	0.52	6.5	2,000	1,000	C-2F	ϕ4.2	18.6	A9682P	
14.0	100	0.72	9.0	2,000	1,000	C-2F	ϕ4.2	19.3	A9660P	
28.0	50	0.41	5.2	6,000	3,000	C-2F	ϕ4.2	17.0	A96135PH	

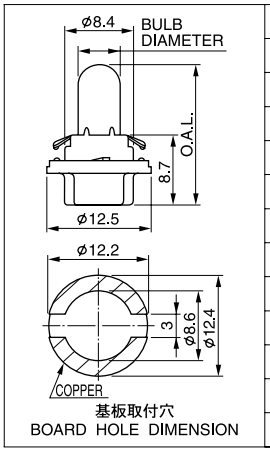


サブミニチュアランプ&プラスチックベース



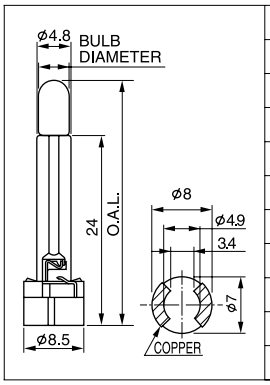
メータークラスター、カーオーディオ用光源
Sub Miniature Lamp and Wedge Base Lamp for the backlighting of instrument cluster and car audio system.

BASE NO. : TSS7019



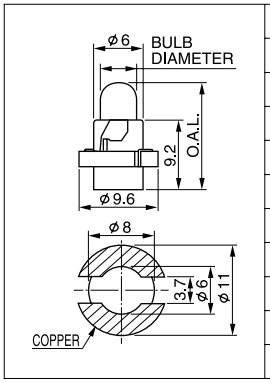
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
13.5	90	0.60	7.5	2,000	1,000	C-2V	ϕ4.8	16.5	A9716	
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.8	17.5	A9715	
14.0	100	0.72	9.0	2,000	1,000	C-2F	ϕ4.8	15.5	A9721	
14.0	110	0.59	7.4	6,000	3,000	C-2F	ϕ4.8	17.5	A97105	
14.0	150	0.95	12.0	6,000	3,000	C-2F	ϕ4.8	17.5	A9717	

BASE NO. : TSS7022



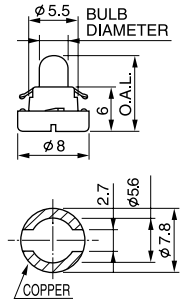
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
8.0	150	0.40	5.0	10,000	5,000	C-2F	ϕ4.2	31.2	A9609P	
14.0	80	0.52	6.5	2,000	1,000	C-2F	ϕ4.2	28.9	A9559P	
14.0	100	0.72	9.0	2,000	1,000	C-2F	ϕ4.2	31.2	A9660P	

BASE NO. : TSS7026



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	14.7	A96114	
14.0	100	0.56	7.0	4,000	2,000	C-2F	ϕ4.2	14.2	A9637	
14.0	110	0.80	10.0	2,000	1,000	C-2F	ϕ4.2	15.2	A9666	
28.0	40	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	15.7	A9627	

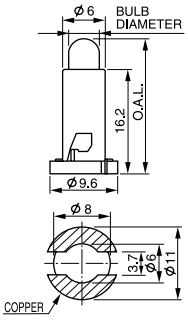
BASE NO. : TSS7028



基板取付穴
BOARD HOLE DIMENSION

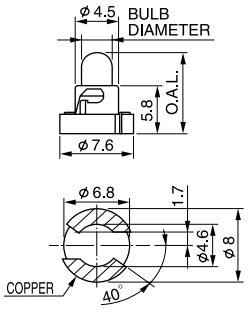
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	40	0.08	1.0	10,000	5,000	C-2F	ϕ3.0	10.1	A9569	
14.0	40	0.12	1.5	10,000	5,000	C-2F	ϕ3.0	10.1	A9529	
14.0	50	0.16	2.0	10,000	5,000	C-2F	ϕ3.0	10.1	A9520	
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	13.9	A9560P	
14.0	100	0.50	6.3	6,000	3,000	C-2F	ϕ4.2	13.9	A9699P	

BASE NO. : TSS7034



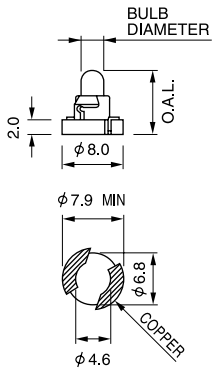
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	50	0.16	2.0	10,000	5,000	C-2F	ϕ4.2	20.7	A9626	
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	20.7	A9639	
14.0	100	0.48	6.0	10,000	5,000	C-2F	ϕ4.2	21.2	A96126	
14.0	100	0.72	9.0	2,000	1,000	C-2F	ϕ4.2	22.2	A9625	

BASE NO. : TSS7052



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	50	0.16	2.0	10,000	5,000	C-2F	ϕ3.0	9.8	A9520	
14.0	60	0.20	2.5	10,000	5,000	C-2F	ϕ3.0	9.8	A9526	
14.0	70	0.28	3.5	5,000	2,500	C-2F	ϕ3.0	9.8	A95119	
14.0	80	0.36	4.5	5,000	2,500	C-2F	ϕ4.2	13.6	A9631P	

BASE NO. : HRQ-1000 SERIES

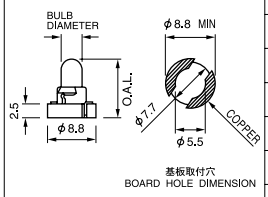


基板取付穴
BOARD HOLE DIMENSION

DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	BASE TYPE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
5.0	115	0.15	1.9	20,000	10,000	C-2R	ϕ3.0	9.0MAX		HRQ1120
8.0	85	0.18	2.2	10,000	5,000	C-2V	ϕ3.0	9.0MAX		HRQ1120
8.0	105	0.24	3.0	10,000	5,000	C-2V	ϕ3.0	9.0MAX		HRQ1120
9.0	75	0.21	2.6	10,000	5,000	C-2V	ϕ3.0	9.0MAX		HRQ1120
12.0	60	0.15	1.9	10,000	5,000	C-2F	ϕ3.0	9.0MAX		HRQ1120
12.0	80	0.20	2.5	10,000	5,000	C-2F	ϕ3.0	9.0MAX		HRQ1120
14.0	40	0.14	1.8	6,000	3,000	C-2F	ϕ3.0	9.0MAX		HRQ1120
14.0	50	0.16	2.0	10,000	5,000	C-2F	ϕ3.0	9.0MAX		HRQ1120
14.0	60	0.20	2.5	10,000	5,000	C-2F	ϕ3.0	9.0MAX		HRQ1120
14.0	65	0.15	1.9	10,000	5,000	C-2F	ϕ3.0	9.0MAX		HRQ1120
14.0	70	0.40	5.0	2,000	1,000	C-2F	ϕ3.0	9.0MAX		HRQ1120
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	12.0MAX		HRQ1010
14.0	100	0.72	9.0	2,000	1,000	C-2F	ϕ4.2	31.0MAX		HRQ1200

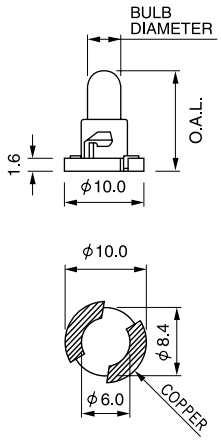
サブミニチュアランプ&プラスチックベース

BASE NO. : HRQ-4000 SERIES



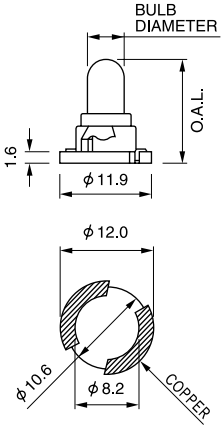
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	BASE TYPE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	80	0.28	3.5	10,000	5,000	C-2F	φ3.8	11.5MAX		HRQ4120
14.0	100	0.48	6.0	10,000	5,000	C-2F	φ3.8	11.5MAX		HRQ4120
14.0	100	0.50	6.3	10,000	5,000	C-2F	φ3.8	11.5MAX		HRQ4120

BASE NO. : HRQ-2000 SERIES



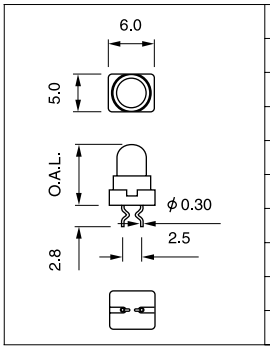
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	BASE TYPE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
5.0	115	0.15	1.9	20,000	10,000	C-2R	φ4.2	14.0MAX		HRQ2010
7.0	75	0.20	2.5	16,000	8,000	C-2R	φ4.2	29.5MAX		HRQ2310
8.0	95	0.44	5.5	1,000	1,000	C-2V	φ4.2	14.0MAX		HRQ2010
8.0	100	0.20	2.5	10,000	5,000	C-2V	φ4.2	14.0MAX		HRQ2010
8.0	150	0.40	5.0	10,000	5,000	C-2V	φ4.2	14.0MAX		HRQ2010
8.0	150	0.40	5.0	10,000	5,000	C-2V	φ4.2	16.0MAX		HRQ2200
12.0	60	0.15	1.9	10,000	5,000	C-2F	φ4.2	14.0MAX		HRQ2010
12.0	60	0.15	1.9	10,000	5,000	C-2F	φ4.2	43.5MAX		HRQ2330
12.0	75	0.24	3.0	10,000	5,000	C-2V	φ4.2	14.0MAX		HRQ2010
12.0	100	0.32	4.0	10,000	5,000	C-2F	φ4.2	14.0MAX		HRQ2010
14.0	50	0.16	2.0	10,000	5,000	C-2F	φ4.2	24.5MAX		HRQ2350
14.0	60	0.24	3.0	6,000	3,000	C-2F	φ4.2	14.0MAX		HRQ2010
14.0	65	0.16	2.0	10,000	5,000	C-2F	φ4.2	14.0MAX		HRQ2010
14.0	80	0.28	3.5	10,000	5,000	C-2F	φ4.2	14.0MAX		HRQ2010
14.0	80	0.28	3.5	10,000	5,000	C-2F	φ4.2	16.0MAX		HRQ2200
14.0	80	0.28	3.5	10,000	5,000	C-2F	φ4.2	24.5MAX		HRQ2350
14.0	80	0.28	3.5	10,000	5,000	C-2F	φ4.2	29.5MAX		HRQ2310
14.0	80	0.46	5.8	5,000	2,500	C-2F	φ4.2	14.0MAX		HRQ2010
14.0	80	0.30	3.8	10,000	5,000	C-2F	φ5.1	16.5MAX		HRQ2200
14.0	100	0.40	5.0	10,000	5,000	C-2F	φ4.2	14.0MAX		HRQ2010
14.0	100	0.50	6.3	10,000	5,000	C-2F	φ4.2	14.0MAX		HRQ2010
14.0	100	0.72	9.0	2,000	1,000	C-2F	φ4.2	14.0MAX		HRQ2010
14.0	115	0.56	7.0	5,000	2,500	C-2F	φ4.2	14.0MAX		HRQ2010
14.0	125	0.70	8.8	5,000	2,500	C-2F	φ5.1	16.5MAX		HRQ2200

BASE NO. : HRQ-3000 SERIES



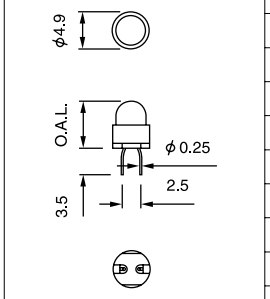
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	BASE TYPE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
8.0	80	0.08	1.0	10,000	5,000	C-2V	φ4.8	14.5MAX		HRQ3010
8.0	150	0.72	9.0	1,000	500	C-2V	φ4.8	14.5MAX		HRQ3010
12.0	60	0.15	1.9	10,000	5,000	C-2F	φ4.8	14.5MAX		HRQ3010
12.0	100	0.32	4.0	10,000	5,000	C-2V	φ4.8	14.5MAX		HRQ3010
12.0	165	0.60	7.5	5,000	2,500	C-2F	φ4.8	14.5MAX		HRQ3010
14.0	50	0.16	2.0	10,000	5,000	C-2F	φ4.8	14.5MAX		HRQ3010
14.0	65	0.16	2.0	10,000	5,000	C-2F	φ4.8	14.5MAX		HRQ3010
14.0	80	0.30	3.8	10,000	5,000	C-2F	φ4.8	14.5MAX		HRQ3010
14.0	100	0.50	6.3	10,000	5,000	C-2F	φ4.8	14.5MAX		HRQ3010
14.0	130	0.70	9.0	4,000	2,000	C-2F	φ4.8	14.5MAX		HRQ3010
14.0	130	0.70	9.0	4,000	2,000	C-2F	φ4.8	15.5MAX		HRQ3200
24.0	50	0.40	5.0	6,000	3,000	C-2F	φ4.8	14.5MAX		HRQ3010
24.0	60	0.32	4.0	6,000	3,000	C-2F	φ4.8	14.5MAX		HRQ3010

BASE NO. : HPS-2C



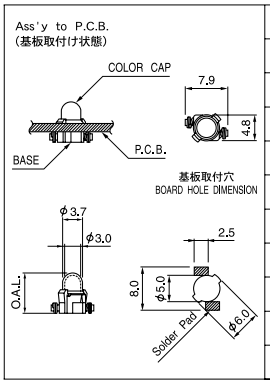
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
8.0	70	0.135	1.7	10,000	6,000	C-2V	ϕ3.0	8.5MAX		
8.0	105	0.24	3.0	10,000	6,000	C-2V	ϕ3.0	8.5MAX		
12.0	60	0.15	1.9	10,000	6,000	C-2F	ϕ3.0	8.5MAX		
14.0	40	0.14	1.8	10,000	5,000	C-2F	ϕ3.0	8.5MAX		
14.0	60	0.215	2.7	10,000	5,000	C-2F	ϕ3.0	8.5MAX		

BASE NO. : HPS-13B



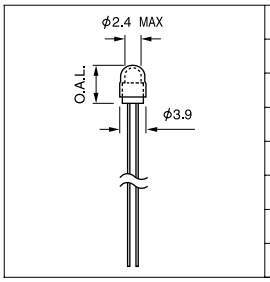
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
5.0	115	0.15	1.9	20,000	15,000	C-2R	ϕ3.0	6.5MAX		
8.0	70	0.135	1.7	10,000	6,000	C-2V	ϕ3.0	6.5MAX		
8.0	105	0.24	3.0	10,000	6,000	C-2V	ϕ3.0	6.5MAX		
12.0	60	0.15	1.9	10,000	6,000	C-2F	ϕ3.0	6.5MAX		
14.0	40	0.14	1.8	10,000	5,000	C-2F	ϕ3.0	6.5MAX		
14.0	60	0.215	2.7	10,000	5,000	C-2F	ϕ3.0	6.5MAX		

BASE NO. : HPS-38 PENETRATING MOUNT LAMP FOR FLOW SOLDERING



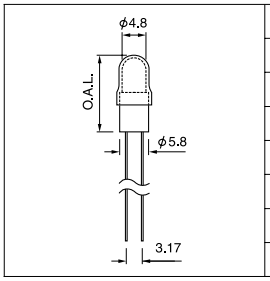
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
5.0	115	0.15	1.9	20,000	15,000	C-2R	ϕ3.0	(7.6)		
8.0	60	0.13	1.6	10,000	6,000	C-2V	ϕ3.0	(7.6)		
8.0	70	0.135	1.7	10,000	6,000	C-2V	ϕ3.0	(7.6)		
8.0	85	0.18	2.2	10,000	6,000	C-2V	ϕ3.0	(7.6)		
8.0	105	0.24	3.0	10,000	6,000	C-2V	ϕ3.0	(7.6)		
9.0	75	0.21	2.6	10,000	5,000	C-2V	ϕ3.0	(7.6)		
9.0	85	0.23	2.9	10,000	6,000	C-2V	ϕ3.0	(7.6)		
14.0	40	0.14	1.8	10,000	5,000	C-2F	ϕ3.0	(7.6)		

BASE NO. : T2.4 BI-PIN BASE



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
4.0	75	0.12	1.5	1,000	1,000	C-2R	ϕ2.4	6.5MAX		
6.0	65	0.10	1.25	10,000	5,000	C-2R	ϕ2.4	6.5MAX		
6.0	70	0.142	1.78	10,000	5,000	C-2R	ϕ2.4	6.5MAX		
6.0	70	0.18	2.2	10,000	5,000	C-2R	ϕ2.4	6.5MAX		

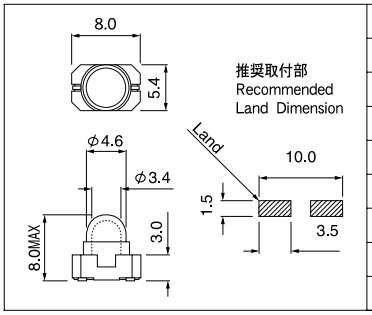
BASE NO. : T4.8 BI-PIN BASE



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
8.0	100	0.20	2.5	10,000	5,000	C-2V	ϕ4.8	16.5MAX		
8.0	150	0.40	5.0	10,000	5,000	C-2V	ϕ4.8	16.5MAX		

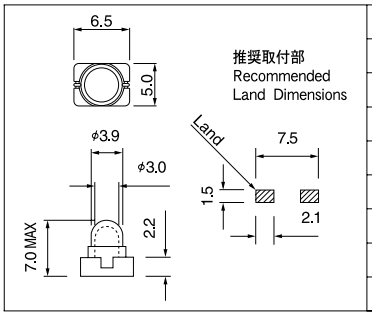
サブミニチュアランプ自動実装型

BASE NO. : HPS-L
SURFACE MOUNT LAMP FOR REFLOW SOLDERING (STANDARD TYPE)



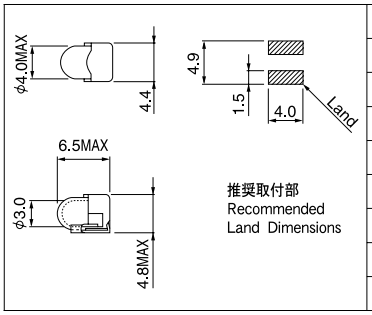
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REFERENCE	TAPING FIG. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	50	0.04	0.5	20,000	10,000	C-2R			3
8.0	70	0.14	1.7	10,000	5,000	C-2V			3
14.5	65	0.22	2.8	10,000	5,000	C-2F			3

BASE NO. : HPS-S
SURFACE MOUNT LAMP FOR REFLOW SOLDERING (STANDARD TYPE)



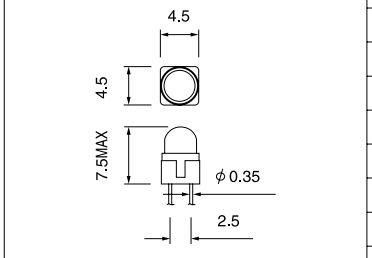
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REFERENCE	TAPING FIG. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	115	0.15	1.9	20,000	15,000	C-2R			4
6.0	80	0.16	2.0	10,000	6,000	C-2R			4
8.0	60	0.13	1.6	10,000	6,000	C-2V			4
14.0	40	0.14	1.8	5,000	3,000	C-2F			4

BASE NO. : HPS-12A
SURFACE MOUNT LAMP FOR REFLOW SOLDERING (HORIZONTAL TYPE)



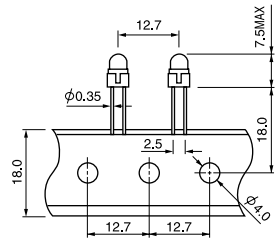
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REFERENCE	TAPING FIG. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	75	0.09	1.1	20,000	15,000	C-2R			5
5.0	115	0.15	1.9	20,000	15,000	C-2R			5
6.0	80	0.16	2.0	10,000	6,000	C-2R			5

BASE NO. : HPS-30C
LEAD THROUGH MOUNT LAMP

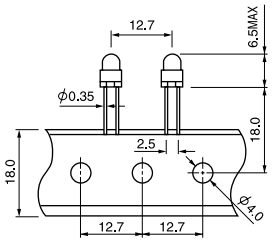


DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REFERENCE	TAPING FIG. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	75	0.09	1.1	20,000	15,000	C-2R			1
5.0	115	0.15	1.9	20,000	15,000	C-2R			1
6.0	80	0.16	2.0	10,000	6,000	C-2R			1
8.0	60	0.13	1.6	10,000	6,000	C-2V			1
9.0	85	0.23	2.9	10,000	6,000	C-2V			1

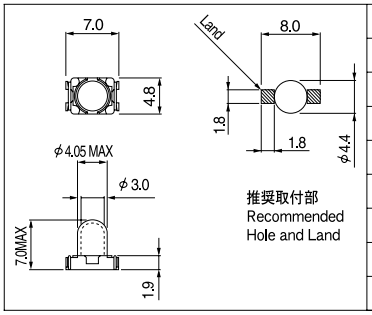
TAPING FIG. 1



TAPING FIG. 2

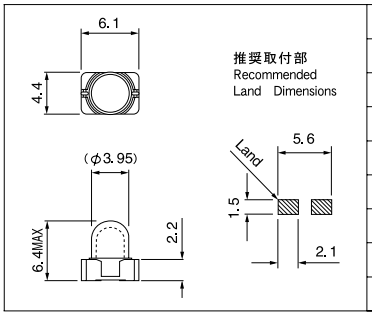


BASE NO. : HPS-33
SURFACE MOUNT LAMP FOR REFLOW SOLDERING (PENETRATING TYPE)



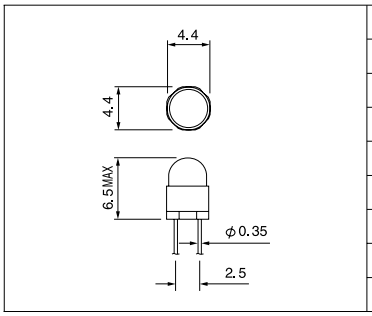
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REFERENCE	TAPING FIG. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
5.0	75	0.09	1.1	20,000	15,000	C-2R			6
5.0	115	0.15	1.9	20,000	15,000	C-2R			6
6.0	80	0.16	2.0	10,000	6,000	C-2R			6
8.0	60	0.13	1.6	10,000	6,000	C-2V			6
9.0	85	0.23	2.9	10,000	6,000	C-2V			6
14.0	40	0.14	1.8	5,000	3,000	C-2F			6

BASE NO. : HPS-41
SURFACE MOUNT LAMP FOR REFLOW SOLDERING (STANDARD TYPE)



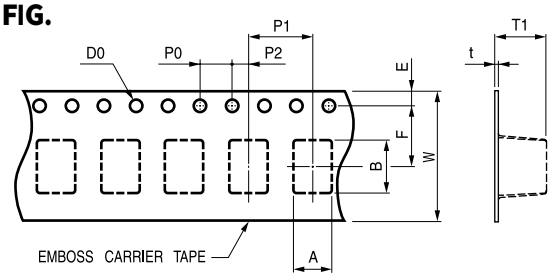
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REFERENCE	TAPING FIG. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
4.0	150	0.15	1.9		10,000	C-2R			7
5.0	75	0.09	1.1	20,000	15,000	C-2R			7
5.0	115	0.15	1.9	20,000	15,000	C-2R			7
5.5	125	0.28	3.5		5,000	C-2R			7
6.0	80	0.16	2.0	10,000	6,000	C-2R			7

BASE NO. : HPS-42
LEAD THROUGH MOUNT LAMP

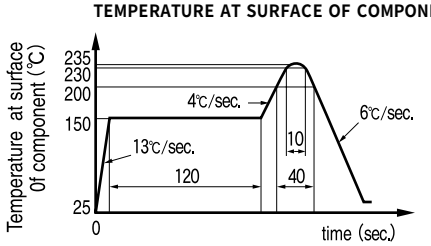


DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REFERENCE	TAPING FIG. NO.
VOLTAGE	CURRENT			AC	DC				
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.				
4.0	150	0.15	1.9		10,000	C-2R			2
5.0	75	0.09	1.1	20,000	15,000	C-2R			2
5.0	115	0.15	1.9	20,000	15,000	C-2R			2
5.5	125	0.28	3.5		5,000	C-2R			2
6.0	80	0.16	2.0	10,000	6,000	C-2R			2

TAPING FIG.



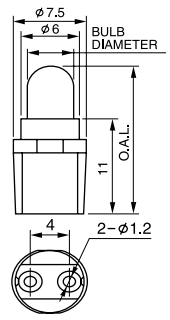
RESISTANCE TO REFLOW SOLDERING HEAT



TAPING FIG. NO.	A	B	W	F	E	P1	P2	P0	D0	t	T1	REEL DIAMETER	PACKAGING QUANTITY
3	5.7	8.3	16.0	7.5	1.75	12.0	2.0	4.0	φ1.5	0.5	8.0	φ370	800 PCS/REEL
4	5.3	6.8	16.0	7.5	1.75	12.0	2.0	4.0	φ1.5	0.5	6.8	φ370	1000 PCS/REEL
5	6.4	4.7	16.0	7.5	1.75	8.0	2.0	4.0	φ1.5	0.4	4.8	φ330	1000 PCS/REEL
6	5.2	7.4	16.0	7.5	1.75	8.0	2.0	4.0	φ1.5	0.4	7.4	φ370	1000 PCS/REEL
7	4.7	6.5	16.0	7.5	1.75	8.0	2.0	4.0	φ1.5	0.4	6.4	φ330	1000 PCS/REEL

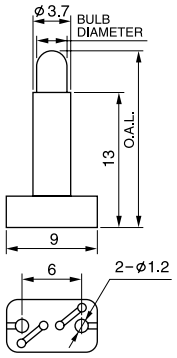
サブミニチュアランプ&ゴムベース

BASE NO. : TGS5013



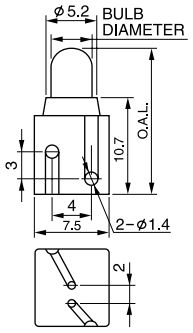
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	60	0.20	2.5	10,000	5,000	C-2F	ϕ4.2	14.5	A9659	
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	16.5	A9632	
14.0	100	0.56	7.0	4,000	2,000	C-2F	ϕ4.2	15.5	A9643	
14.0	140	0.64	8.0	10,000	5,000	C-2F	ϕ4.8	16.5	A9743	
28.0	50	0.72	9.0	2,000	1,000	C-2F	ϕ4.2	16.5	A9672	

BASE NO. : TGS5019



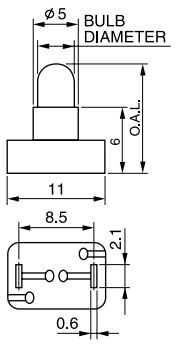
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	40	0.16	2.0	10,000	5,000	C-2F	ϕ3.0	17.0	A9516	
14.0	50	0.12	1.5	10,000	5,000	C-2F	ϕ3.0	15.5	A95118	
14.0	60	0.20	2.5	10,000	5,000	C-2F	ϕ3.0	17.0	A9526	
14.0	60	0.30	3.8	6,000	3,000	C-2F	ϕ3.0	17.0	A9597	
28.0	40	0.30	3.8	10,000	5,000	C-2F	ϕ3.4	17.5	A9577H	

BASE NO. : TGS5036



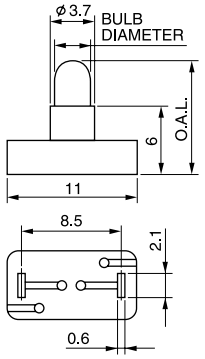
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
8.0	150	0.40	5.0	20,000	10,000	C-2V	ϕ4.2	16.2	A9600	
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	16.2	A7330	
14.0	100	0.56	7.0	4,000	2,000	C-2F	ϕ4.2	15.7	A9643	
14.0	100	0.72	9.0	2,000	1,000	C-2F	ϕ4.8	17.2	A9721	

BASE NO. : TGS5037



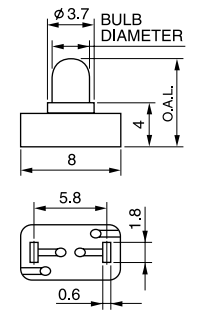
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	40	0.12	1.5	10,000	5,000	C-2F	ϕ4.2	12.0	A9653	
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	12.5	A9632	
14.0	100	0.72	9.0	2,000	1,000	C-2F	ϕ4.2	12.0	A9625	
28.0	40	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	12.5	A9627	
28.0	50	0.72	9.0	2,000	1,000	C-2F	ϕ4.2	12.5	A9672	

BASE NO. : TGS5038



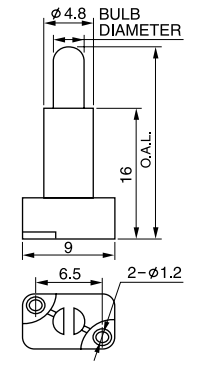
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	40	0.12	1.5	10,000	5,000	C-2F	ϕ3.0	8.5	A9536	
14.0	50	0.16	2.0	10,000	5,000	C-2F	ϕ3.0	10.0	A9520	
14.0	60	0.25	3.2	6,000	3,000	C-2F	ϕ3.0	10.0	A9597	
14.0	60	0.36	4.5	1,000	500	C-2F	ϕ3.0	8.5	A9535	
14.0	80	0.36	4.5	4,000	2,000	C-2F	ϕ3.4	9.0	A9504	
28.0	40	0.30	3.8	10,000	5,000	C-2F	ϕ3.4	10.5	A9577	

BASE NO. : TGS5077



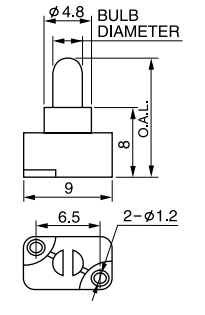
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	40	0.12	1.5	10,000	5,000	C-2F	ϕ3.0	7.5	A9536	
14.0	50	0.16	2.0	10,000	5,000	C-2F	ϕ3.0	7.5	A9522	
14.0	60	0.25	3.2	6,000	3,000	C-2F	ϕ3.0	7.5	A9508	
14.0	80	0.36	4.5	4,000	2,000	C-2F	ϕ3.4	8.0	A9504	
28.0	40	0.30	3.8	10,000	5,000	C-2F	ϕ3.4	9.5	A9575	

BASE NO. : TGS5096



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	40	0.12	1.5	10,000	5,000	C-2F	ϕ3.0	20.0	A9529	
14.0	50	0.16	2.0	10,000	5,000	C-2F	ϕ3.0	18.5	A9522	
14.0	60	0.25	3.2	10,000	5,000	C-2F	ϕ3.0	18.5	A9508	
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	23.8	A9560P	
14.0	100	0.50	6.3	6,000	3,000	C-2F	ϕ4.2	23.8	A9699P	
14.0	100	0.72	9.0	2,000	1,000	C-2F	ϕ4.2	23.8	A9685P	

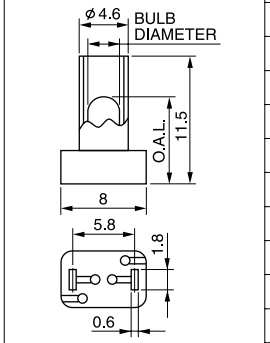
BASE NO. : TGS5098



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	50	0.16	2.0	10,000	5,000	C-2F	ϕ3.0	12.0	A9520	
14.0	60	0.20	2.5	10,000	5,000	C-2F	ϕ3.0	12.0	A9526	
14.0	80	0.30	3.8	10,000	5,000	C-2F	ϕ4.2	15.8	A9560P	
14.0	100	0.72	9.0	2,000	1,000	C-2F	ϕ4.2	15.8	A9685P	

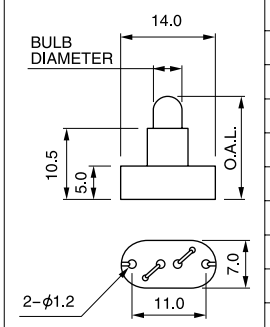
サブミニチュアランプ&ゴムベース

BASE NO. : TGS5104



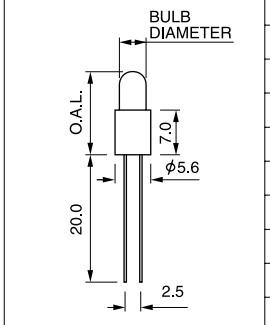
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
14.0	40	0.12	1.5	10,000	5,000	C-2F	φ3.0	7.5	A9536	
14.0	50	0.16	2.0	10,000	5,000	C-2F	φ3.0	7.5	A9522	
14.0	60	0.25	3.2	6,000	3,000	C-2F	φ3.0	7.5	A9508	

BASE NO. : H-24



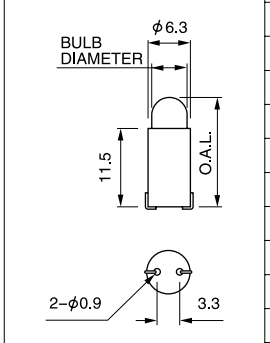
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
8.0	150	0.40	5.0	10,000	5,000	C-2V	φ4.2	17.0MAX		
14.0	100	0.50	6.3	10,000	5,000	C-2F	φ4.2	17.0MAX		
24.0	60	0.24	3.0	6,000	3,000	C-2F	φ4.2	17.0MAX		

BASE NO. : H-25



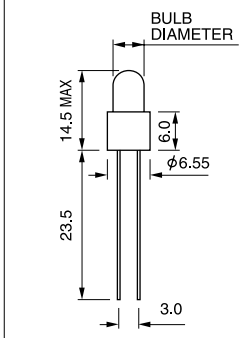
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
8.0	150	0.40	5.0	10,000	5,000	C-2V	φ4.2	15.0MAX		
14.0	100	0.50	6.3	10,000	5,000	C-2F	φ4.2	15.0MAX		

BASE NO. : H-35



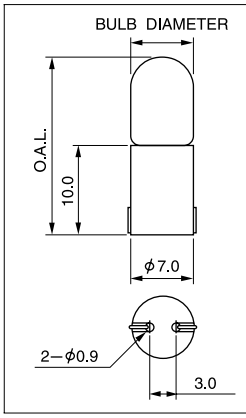
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
28.0	60	0.32	4.0	10,000	5,000	C-2F	φ5.3	18.0MAX		

BASE NO. : H-51



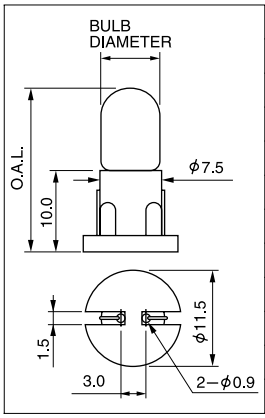
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
8.0	100	0.20	2.5	10,000	5,000	C-2F	ϕ4.8	14.5MAX		
16.0	120	0.96	12.0	1,000	1,000	C-2F	ϕ4.8	14.5MAX		

BASE NO. : H-70



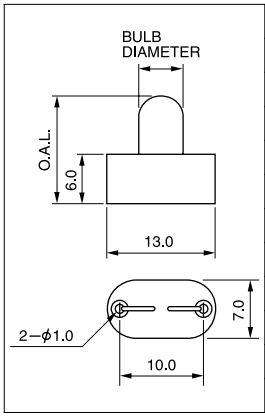
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
28.0	80		8.0	5,000		C-2F	ϕ7.0	20.0		
28.0	110		20.0	1,000		C-2F	ϕ7.0	20.0		
28.0	110		20.0	1,000		C-2F	ϕ7.0	16.5		

BASE NO. : H-71



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
28.0	110		20.0	1,000		C-2F	ϕ7.0	20.0		

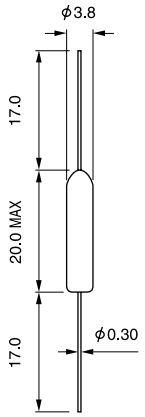
BASE NO. : H-82



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	BULB DIAMETER (mm)	OVER ALL LENGTH (O. A. L.)	TOSHIBA LAMP NO.	REFERENCE
VOLTAGE	CURRENT			AC	DC					
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.					
28.0	110		15.0	1,000		C-2F	ϕ5.3	13.0		
28.0	110		20.0	1,000		C-2F	ϕ7.0	14.0		

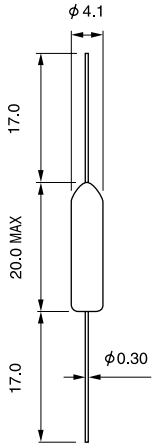
アクシャルタイプランプ

T3.8mm (T-1 1/8)



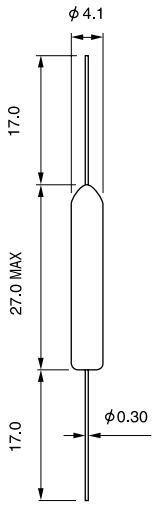
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC			
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.			
6.0	100	0.15	1.9	10,000	5,000	C-8		
8.0	55	0.12	1.5	5,000	2,500	C-8		
8.0	150	0.40	5.0	10,000	5,000	C-8		HRT-3270A
12.0	55	0.16	2.0	5,000	2,500	C-8		
12.0	80	0.24	3.0	10,000	5,000	C-8		HRT-3281A
12.0	110	0.48	6.0	10,000	5,000	C-8		HRT-3291A
14.0	80	0.32	4.0	10,000	5,000	C-8		

T4.1×20mmMAX (T-1 1/4 ×20mmMAX)



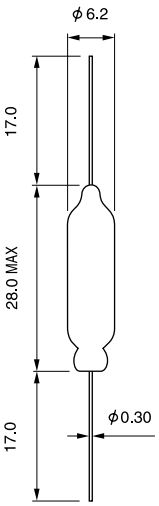
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC			
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.			
5.5	95	0.20	2.5	3,000	1,500	C-8		
6.3	70	0.12	1.5	5,000	2,500	C-8		
6.3	100	0.16	2.0	10,000	5,000	C-8		HRT-4040A
8.0	55	0.08	1.0	5,000	2,500	C-8		
8.0	150	0.40	5.0	10,000	5,000	C-8		HRT-4070A
12.0	55	0.18	2.3	5,000	2,500	C-8		
12.0	110	0.56	7.0	5,000	2,500	C-8		
14.0	50	0.16	2.0	5,000	2,500	C-8		HRT-4120A
14.0	80	0.24	3.0	10,000	5,000	C-8		
14.0	100	0.40	5.0	10,000	5,000	C-8		
14.0	150	0.80	10.0	5,000	2,500	C-8		
15.0	100	0.52	6.5	10,000	5,000	C-8		
16.0	80	0.40	5.0	10,000	5,000	C-8		
16.0	150	0.96	12.0	10,000	5,000	C-8		

T4.1×27mmMAX (T-1 1/4 ×27mmMAX)



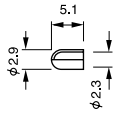
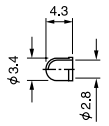
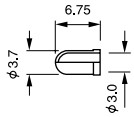
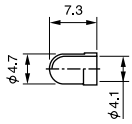
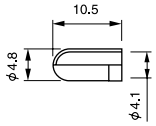
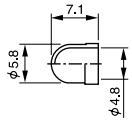
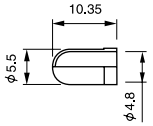
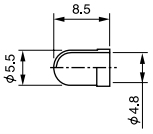
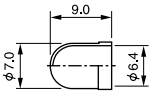
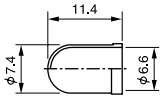
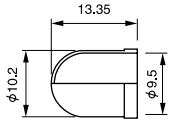
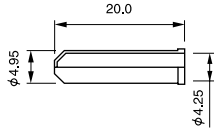
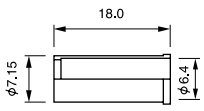
DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC			
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.			
8.0	55	0.12	1.5	5,000	2,500	C-8		HRT-4250A
12.0	55	0.16	2.0	5,000	2,500	C-8		
12.0	110	0.56	7.0	5,000	2,500	C-8		
14.0	50	0.16	2.0	5,000	2,500	C-8		HRT-4320A
14.0	80	0.32	4.0	10,000	5,000	C-8		

T6.2mm (T-2)



DESIGN		LUMINOUS FLUX		AVG LIFETIME		FILAMENT SHAPE	TOSHIBA LAMP NO.	REF. NO.
VOLTAGE	CURRENT			AC	DC			
V	mA	M.S.C.P.	ℓ m	hrs.	hrs.			
2.4	333	0.16	2.0	10,000	5,000	C-8		
2.4	400	0.20	2.5	10,000	5,000	C-8		
2.4	500	0.25	3.1	10,000	5,000	C-8		
6.0	200	0.60	7.5	5,000	3,000	C-8		
6.0	250	0.37	4.6	10,000	5,000	C-8		
6.3	150	0.30	3.8	10,000	5,000	C-8		
6.3	250	0.56	7.0	5,000	3,000	C-8		
6.3	300	0.64	8.0	5,000	3,000	C-8		
8.0	150	0.40	5.0	10,000	5,000	C-8		
8.0	200	0.56	7.0	10,000	5,000	C-8		
8.0	300	0.80	10.0	5,000	3,000	C-8		
10.0	100	0.16	2.0	10,000	5,000	C-8		
10.0	200	0.44	5.5	10,000	5,000	C-8		
12.0	100	0.40	5.0	10,000	5,000	C-8		
12.0	110	0.56	7.0	5,000	3,000	C-8		HRT-6101A
12.0	150	0.72	9.0	5,000	3,000	C-8		HRT-6111A
12.0	200	0.80	10.0	5,000	3,000	C-8		
12.0	300	1.04	13.0	5,000	3,000	C-8		
14.0	120	0.52	6.5	10,000	5,000	C-8		
14.0	200	0.80	10.0	5,000	3,000	C-8		
15.0	300	1.91	24.0	5,000	3,000	C-8		
16.0	150	0.88	11.0	10,000	5,000	C-8		

カラーフィルター（シリコンゴムキャップ） COLOR FILTER (SILICONE RUBBER CAPS)

APPLICATION	TYPE	DRAWING
FOR T2.4mm (T-3/4) SUB MINIATURE LAMP USE	A-23050	
FOR T3.0mm (T-1) SUB MINIATURE LAMP USE	TSC2804	
	TSC3006 A-3006	
FOR T4.2mm (T-1 1/4) SUB MINIATURE LAMP USE	TSC4207	
	TSC4210 A-4210	
FOR T4.8mm (T-1 1/2) SUB MINIATURE LAMP USE	TSC4807	
	TSC4910 A-4910	
FOR T5mm (T-1 1/2) WEDGE BASE LAMP USE	TSC4808	
FOR T6.5mm (T-2) WEDGE BASE LAMP USE	TSC6409	
FOR T7mm (T-2 1/4) WEDGE BASE LAMP USE	TSC6611	
FOR T10mm (T-3 1/4) WEDGE BASE LAMP USE	TSC10013 A-10013	
FOR T4.1mm (T-1 1/4) AXIAL TYPE LAMP USE	AF-4220	
FOR T6.2mm (T-2) AXIAL TYPE LAMP USE	AF-6418	

注）上記記載以外にも形状はございますのでご希望をお申し付け下さい。

Note）In addition to above, special types are available on your request.

安全上の注意

警　告

・紙や布などでおおったり、燃えやすいものに近づけないでください。
火災の原因になります。

注　意

・落としたり、物をぶつけたり、無理な力を加えたり、キズをつけたりしないでください。破損した場合ケガの原因となることがあります。
・交換時は定格（ボルト・ワット）口金形状を確認し、ソケットの向きを確かめて確実に装着して下さい。電球の脱落、過熱の原因となることがあります。
・点灯中や消灯直後は、電球が熱いので手や肌などをふれないで下さい。ヤケドの原因となることがあります
・交換時は必ず電源を切り、電球の熱を十分にさましてから交換してください。ヤケドの原因となることがあります。
・交換時は、ガラス部に灯具やコードの一部がふれないことを確認してください。火災の原因となることがあります。
・使用済の電球は、割らずに廃棄して下さい。
電球を割るとガラス破片が飛散し、ケガの原因となることがあります。

ご使用上の注意

・ランプを直列につないで使用した場合、もっとも明るい電球が加速的に劣化し、寿命が短縮することがあります。
・ランプ導入線を直接はんだ付けする場合、はんだゴテは、出来るだけ細いものを使用し、ガラスの部分には絶対に接触させないで下さい。
・周囲温度が80℃以上の場所でご使用になる場合には、当社営業部と打ち合わせの上ご使用下さい。
・自動車以外に使用する場合は、定格(ボルト、ワット)を確認のうえ使用してください。
・塗料などを（絶対に）塗らないでください。
・取り扱うときは、水や油を避け、汚れた手や手袋で扱わないでください。
・使用方法により性能が大きく変わりますので、使用条件を考慮した灯具設計をしてください。
・水滴などがかからないように灯具設計をしてください。

NOTIFICATION FOR SAFETY

Caution

・Do not shade, wrap, or cover lamps with materials such as paper or cloth.

Safety Notice

・Do not drop, hit, exert an excessive force, or damage lamps. Damaged lamps can cause injury.
・When changing lamps, check the rated voltage, wattage, base forms and the direction of the sockets first. Make sure lamps are installed properly; otherwise they may fall off or overheat.
・Do not touch lamps with bare hands or skin because bulbs are heated while lighting or just after being turned off, otherwise it will cause burns.
・When changing lamps, switch off and cool down lamps first, otherwise they may cause burns.
・When replacing lamps, make sure the glass part is kept out of fixtures or wires.
・Do not break lamps when disposing of them. Broken glass can cause injury.

Attention

・If lamps are connected in series, the deterioration of the brightest lamp will be accelerated and the life may be shortened.
・If a lamp lead wire needs to be soldered directly, use the thinnest soldering iron and do not touch the glass.
・If lamps are used in a place where ambient temperatures are over 80℃, consult our sales department before using.
・Check rated voltage and wattage when using the lamps for non-automotive applications.
・Do not paint lamps and sockets.
・Characteristics of lamp and socket assembly may vary according to utility and conditions. Please design your fixtures with consideration for the actual use condition.
・All fixtures should be designed to be kept away from water or moisture.

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