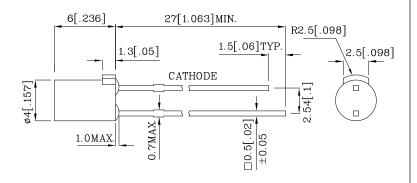


 $4 mm \ CYLINDRICAL \ LED \ LAMP$

Features

- CYLINDRICAL TYPE, FLAT TOP.
- CONVEX CATHODE MARK ON BODY.
- LOW POWER CONSUMPTION.
- I.C. COMPATIBLE.
- RELIABLE AND RUGGED.
- LONG LIFE SOLID STATE RELIABILITY.
- Rohs Compliant.







Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is \pm 0.25(0.01") unless otherwise noted.
- $3. {\rm Specifications}$ are subject to change without notice.

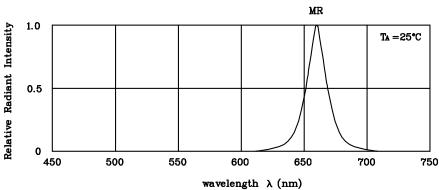
Absolute Maximum Rating (TA=25°C)	MR (GaAlAs)	Unit			
Reverse Voltage	VR	5	V		
Forward Current	IF	30	mA		
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	155	mA		
Power Dissipation	Рт	75	mW		
Operating Temperature	TA	-40 ~ +85	°C		
Storage Temperature	Tstg	-40 ~ +85			
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds				
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds				

Operating Characteristics (Ta=25°C)		MR (GaAlAs)	Unit
Forward Voltage (Typ.) (IF=20mA)	$V_{\rm F}$	1.85	V
Forward Voltage (Max.) (IF=20mA)	$V_{\rm F}$	2.5	V
Reverse Current (Max.) (VR=5V)	IR	10	uA
Wavelength Of Peak Emission (Typ.) (IF=20mA)	λΡ	660	nm
Wavelength Of Dominant Emission (Typ.) (IF=20mA)	λ D	640	nm
Spectral Line Full Width At Half-Maximum (Typ.) (IF=20mA)	Δλ	20	nm
Capacitance (Typ.) (VF=0V, f=1MHz)	С	45	pF

Part Number	Emitting Color	Emitting Material	Lens-color		Luminous Intensity (IF=20mA) mcd		Wavelength nm λ P	Viewing Angle 2 0 1/2
				mi	n.	typ.		
XSMR28D	Red	GaAlAs	Red Diffused	50	0	79	660	100°
Published Date : JAN 15, 2008 Drawing No : XDSA2275 V5 Checked : B.L.LIU P.1/4								P.1/4

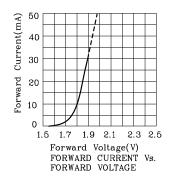
4mm CYLINDRICAL LED LAMP

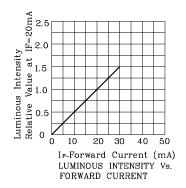


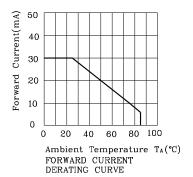


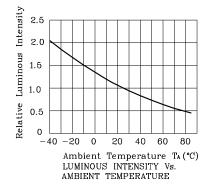
RELATIVE INTENSITY Vs. WAVELENGTH

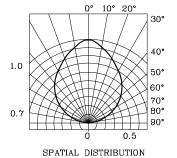
♦ MR







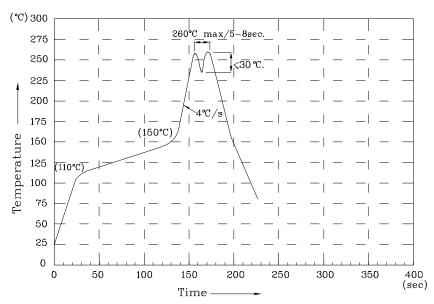




 $Published\ Date: JAN\ 15,\,2008 \qquad \qquad Drawing\ No:\ XDSA2275 \qquad V5 \qquad \qquad Checked: B.L.LIU \qquad P.2/4$

4mm CYLINDRICAL LED LAMP

Wave Soldering Profile For Lead-free Through-hole LED.



NOTES:

- 1.Recommend the wave temperature 245°C \sim 260°C.The maximum soldering temperature should be less than 260°C.
- 2.Do not apply stress on epoxy resins when temperature is over 85 degree ${}^{\circ}\!\text{C}.$
- 3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
- 4. No more than once.

Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux or wavelength), the typical accuracy of the sorting process is as follows:

- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

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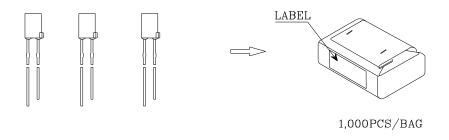
 $4 mm \ CYLINDRICAL \ LED \ LAMP$

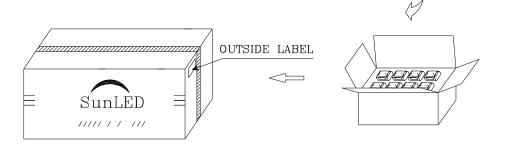
PACKING & LABEL SPECIFICATIONS

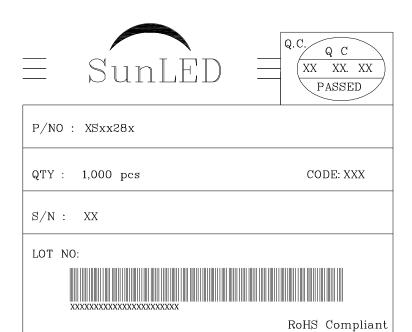
40K / BOX

XSMR28D

20K / BOX







Published Date : JAN 15, 2008 Drawing No : XDSA2275 V5 Checked : B.L.LIU P.4/4