

Round LED with Housing

Super Red, 4.7mm

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RoHS
Compliant

Specifications

Dice Material	: AllnGaP
Emitted colour	: Super Red
Lens colour	: Red Diffused
Peak wavelength	: 650nm
Viewing angle	: 45°
Luminous intensity (IV)	: 25mcd

Electrical / Optical Characteristics at Ta = 25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	IV	20	25	35	mcd	IF = 20mA
Viewing Angle	2θ1/2		45		deg	
Peak Emission Wavelength	λp		650		nm	
Dominant Wavelength	λD	635	640	645	nm	
Spectral Line Half-Width	Δλ		20		nm	
Forward Voltage	VF	1.8	1.9	2.2	V	
Reverse Current	I _r	-	-	10	uA	VR=5V

▲ Luminous intensity (IV) ±10%, Forward Voltage (VF) ±0.1V, Wavelength (λd) ±0.5nm

Absolute Maximum Ratings: (Ta = 25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	85	mW
Peak Forward Current (Duty 1/10 @ 1KHZ)	IF (Peak)	100	mA
Recommended Operating Current	IF (Rec)	25	mA
Electrostatic Discharge	ESD _{HBM}	2000	V
Operating Temperature Range	T _{OPR}	-40 to +85	°C
Storage Temperature Range	T _{STG}	-40 to +100	°C
Lead Soldering Temperature Range (1.6 mm (1/16 inch) from body)		Reflow Soldering: 260°C for 5 sec. Hand Soldering: 350°C for 3 sec.	

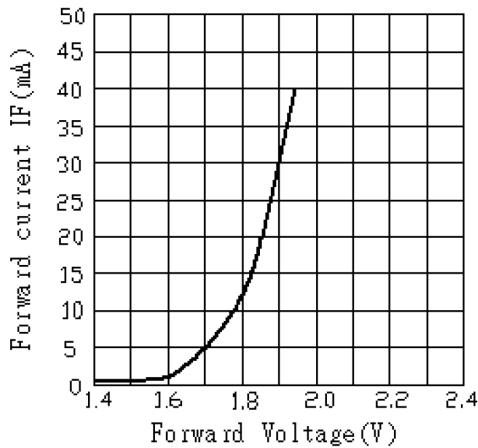
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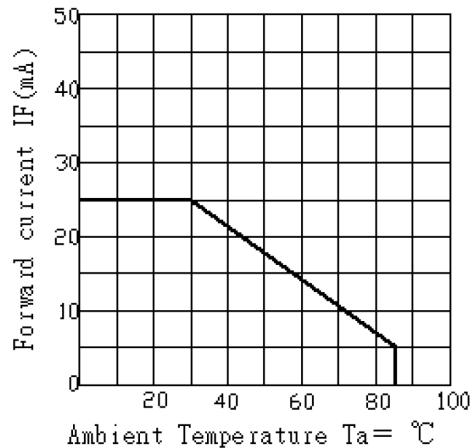
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Typical Electro-Optical Characteristics Curves

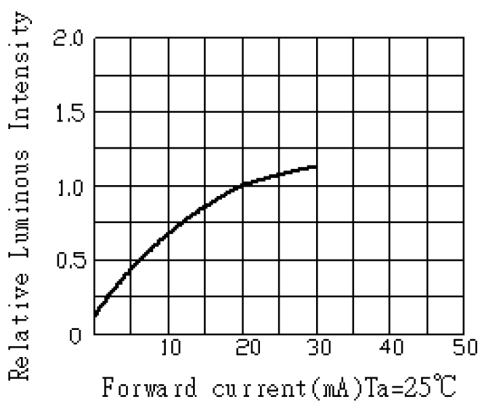
Super Red (AlInGaP $\lambda_d=640\text{nm}$)



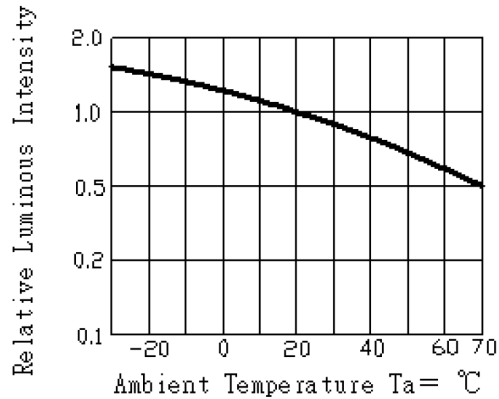
Forward current vs. Forward Voltage



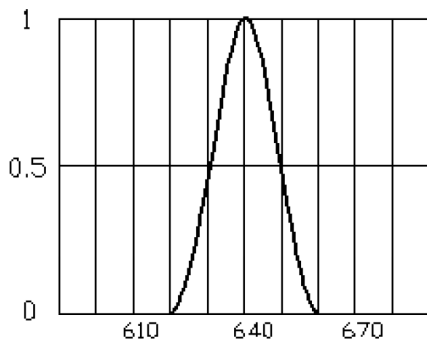
Forward current Derating curve



Luminous Intensity vs. Forward current



Luminous Intensity vs. Ambient Temperature



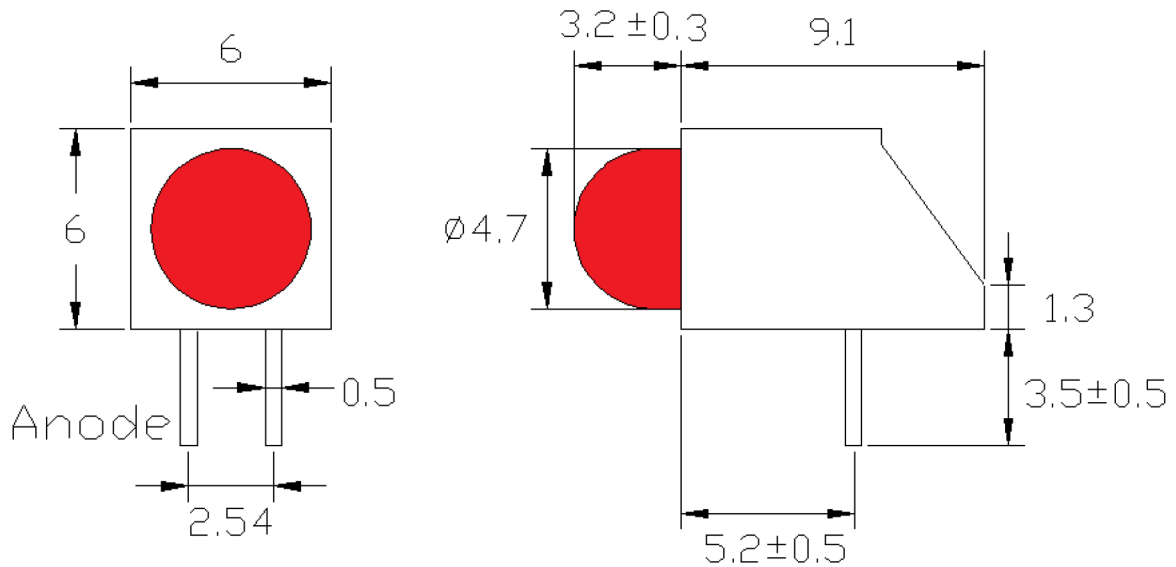
Relative Intensity VS. wavelength

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Dimensions



Dimensions : Millimetres

Part Number Table

Description	Part Number
Round LED with Housing, Super Red, 4.7mm, 650nm, 45°, 25mcd, Through hole	MP008017

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