

Cylindrical LED

Super Red, 3mm

multicomp^{PRO}

RoHS
Compliant

Specifications

Dice Material : AlInGaP
Emitted colour : Super Red
Lens colour : Red Diffused
Peak wavelength : 653nm
Viewing angle : 100°
Luminous intensity (IV) : 40mcd

Electrical / Optical Characteristics at Ta = 25°C						
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	IV	25	40	65	mcd	IF = 20mA
Viewing Angle	2θ1/2		100		deg	
Peak Emission Wavelength	λp		653		nm	
Dominant Wavelength	λD	632	637	643	nm	
Spectral Line Half-Width	Δλ		19		nm	
Forward Voltage	VF	1.7	1.9	2.4	V	VR=5V
Reverse Current	I _r	-	-	10	uA	

▲ 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	P _d	85	mW
Peak Forward Current (Duty 1/10 @ 1KHZ)	IF (Peak)	100	mA
Recommended Operating Current	IF (Rec)	30	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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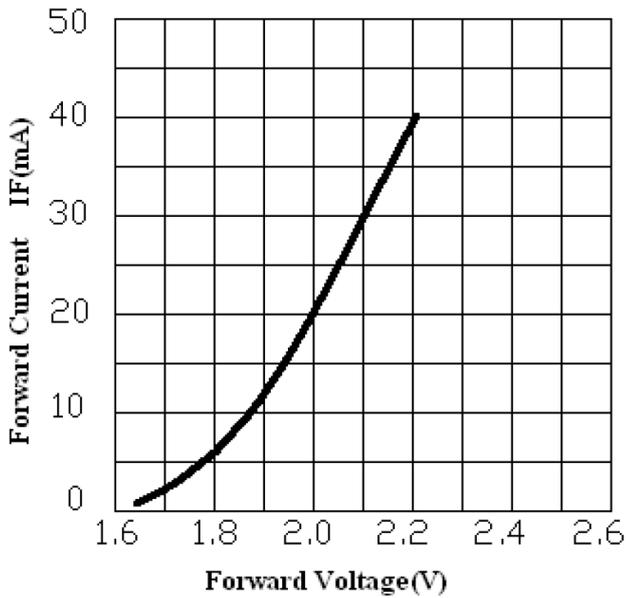
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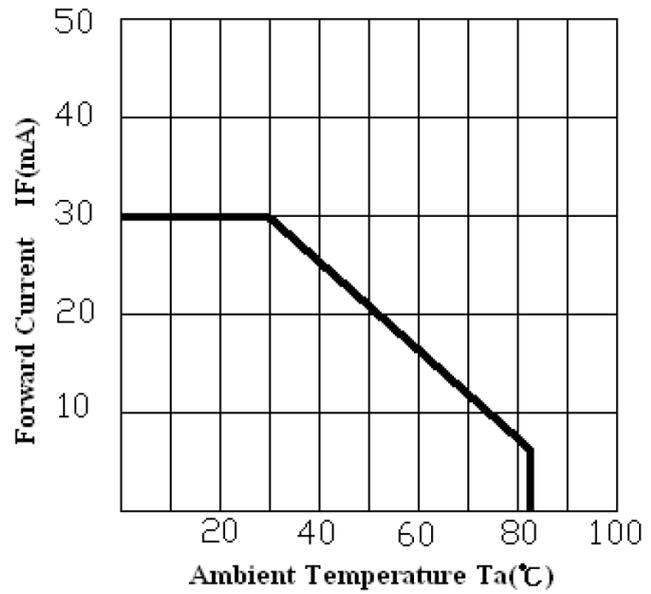
Super Red, 3mm

Typical Electro-Optical Characteristics Curves

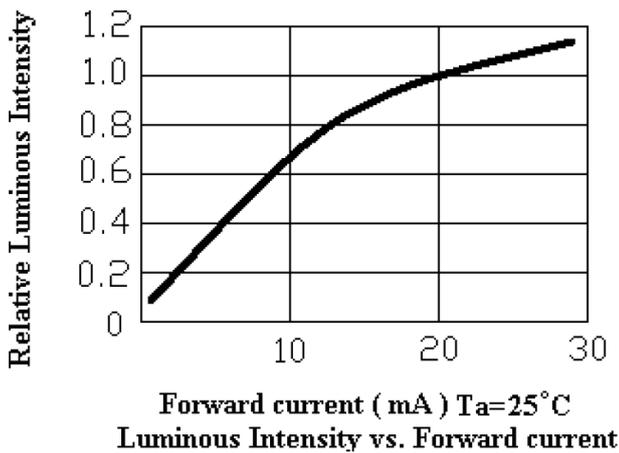
Ultra Red (AlInGaP $\lambda_P=653\text{nm}$)



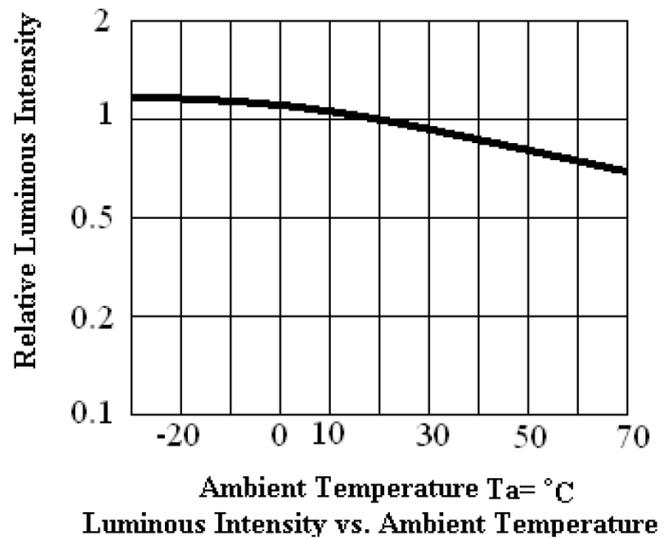
Forward Current vs. Forward Voltage



Forward Current Derating Curve



Luminous Intensity vs. Forward current

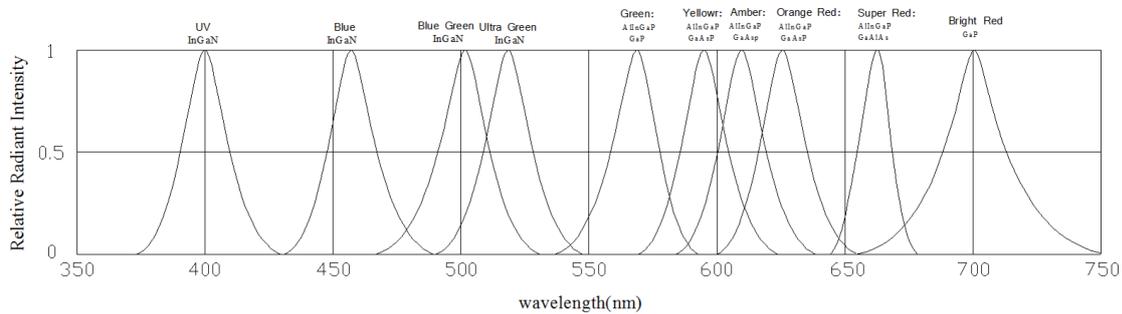


Luminous Intensity vs. Ambient Temperature

Cylindrical LED

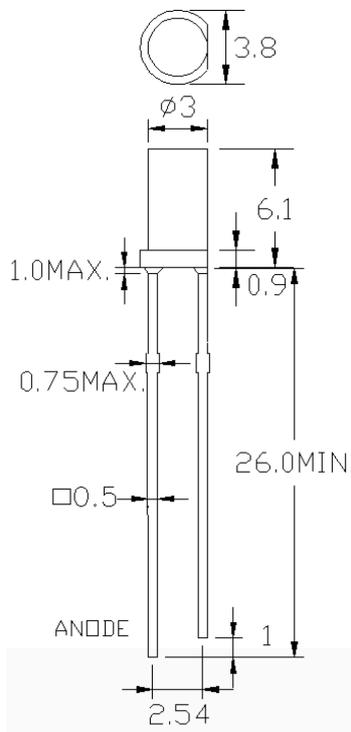
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Relative Intensity VS. wavelength

Dimensions



Dimensions : Millimetres

Part Number Table

Description	Part Number
Cylindrical LED, Super Red, 653nm, 100°, 40mcd, Through hole	MP007983

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