

# Flangeless Round LED

## Super Red, 3mm x 5.1mm

multicomp<sup>PRO</sup>

RoHS  
Compliant

### Specifications

Dice Material : AlInGaP  
Emitted colour : Super Red  
Lens colour : Red Diffused  
Peak wavelength : 650nm  
Viewing angle : 50°  
Luminous intensity (IV) : 20mcd

Electrical / Optical Characteristics at Ta = 25°C						
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	IV	15	20	35	mcd	IF = 20mA
Viewing Angle	2θ1/2		50		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 <sub>r</sub>	-	-	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 <sub>HBM</sub>	2000	V
Operating Temperature Range	T <sub>OPR</sub>	-40 to +85	°C
Storage Temperature Range	T <sub>STG</sub>	-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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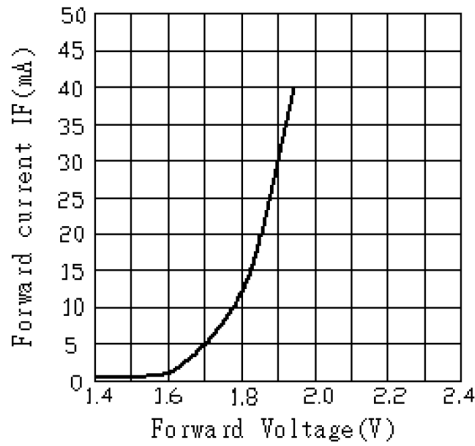
# Flangeless Round LED

## Super Red, 3mm x 5.1mm

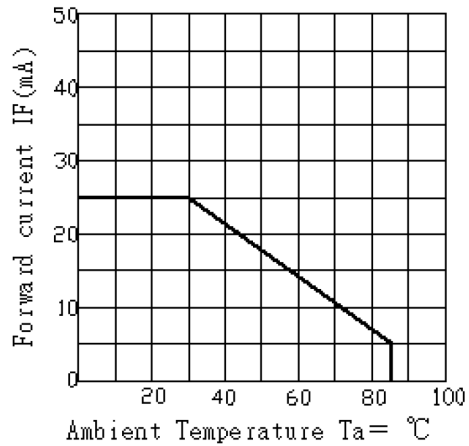
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### Typical Electro-Optical Characteristics Curves

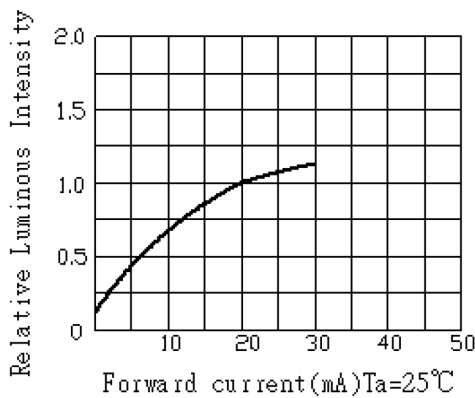
#### Super Red (AlInGaP $\lambda_d=640\text{nm}$ )



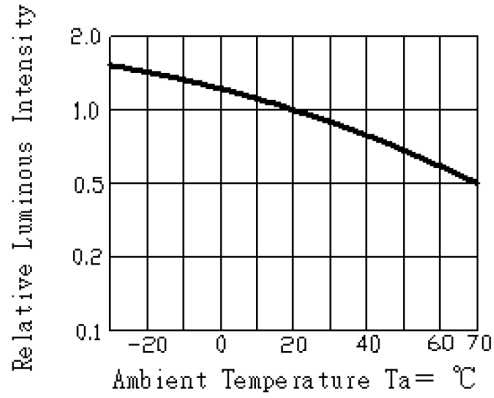
Forward current vs. Forward Voltage



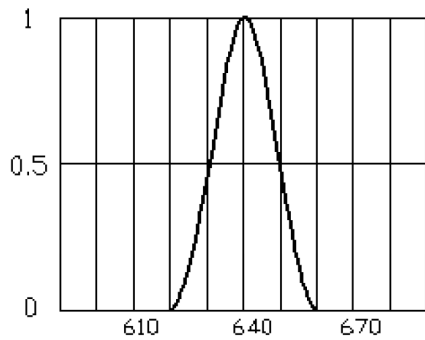
Forward current Derating curve



Luminous Intensity vs. Forward current



Luminous Intensity vs. Ambient Temperature

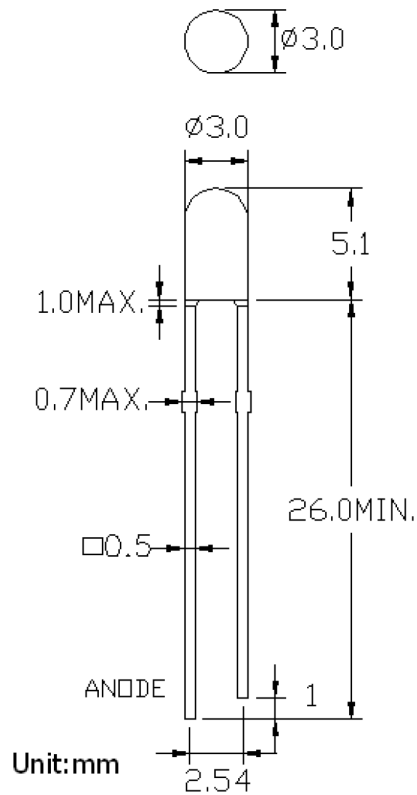


Relative Intensity vs. wavelength

# Flangeless Round LED Super Red, 3mm x 5.1mm

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## Dimensions



Dimensions : Millimetres

## Part Number Table

Description	Part Number
Flangeless Round LED, Super Red, 650nm, 50°, 20mcd, Through hole	MP008020

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