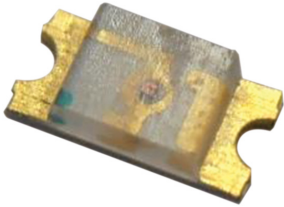


LED, 1.25mm



Electrical/Optical characteristics at $T_A = 25^\circ\text{C}$

Parameter	Symbol	Min.	Type	Max.	Unit	Test
Luminous Intensity	IV	90	150	250	mcd	IF = 20mA
Viewing Angle	$2\theta_{1/2}$		130		Deg.	IF = 20mA
Peak Emission Wavelength	λ_p		635		nm	
Dominant Wavelength	λ_D	615	623	630	nm	IF = 20mA
Spectral Line Half-Width	$\Delta\lambda$		18		nm	
Forward Voltage	VF	1.7	2.1	2.3	V	IF = 20mA
Power Dissipation	Pd			80	mW	
Peak Forward Current (Duty1/10 @ 1kHz)	IF (Peak)			100	mA	
Recommended Operating Current	IF (Rec)		20		mA	

Absolute Maximum Ratings : ($T_A = 25^\circ\text{C}$)

- Reverse Voltage : 5 Volt
- Reverse Current : $10\mu\text{A}$ ($V_R = 5\text{V}$)
- Operating Temperature Range : -40°C to $+85^\circ\text{C}$
- Storage Temperature Range : -40°C to $+100^\circ\text{C}$
- Lead Soldering Temperature Range : 260°C For 5 Seconds
{1.6mm (1/16 inch) from body}

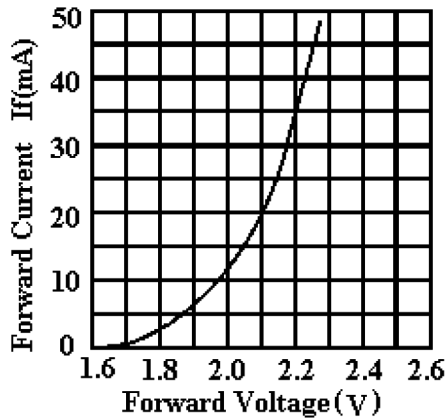
Reliability test For LED Lamps

Item	Test Conditions	Test Time/Cycle	Sample Size	Ac/Re
DC Operating Life	Temperature : 25°C IF : 20mA	1,000 Hrs.	76 Pcs.	0/1
High Temperature High Humidity	Temperature : 85°C 85%RH			
High Temperature Storage	Temperature : 100°C			
Low Temperature Storage	Temperature : -40°C			
Temperature Cycling	$85^\circ\text{C} \sim 25^\circ\text{C} \sim -35^\circ\text{C}$ 15min~ 5min~ 15min	15 Cycles		
Thermal Shock	$85^\circ\text{C} \sim 25^\circ\text{C} \sim -10^\circ\text{C}$ 5min~ 10sec ~ 5min			
Solder Heat	Temperature : $260^\circ\text{C} \pm 5^\circ\text{C}$	10 Sec.		

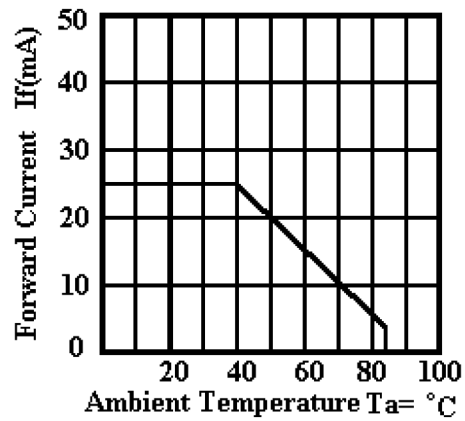


Typical Electro-Optical Characteristics Curves

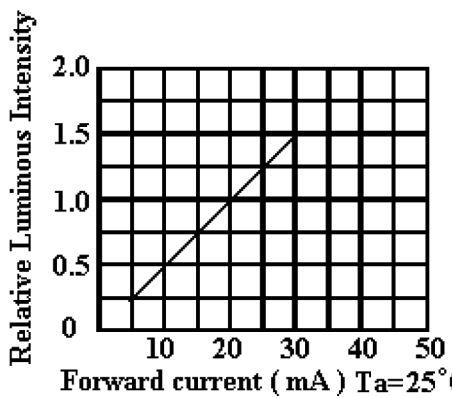
Super Orange (AlInGaP $\lambda_P=635\text{nm}$)



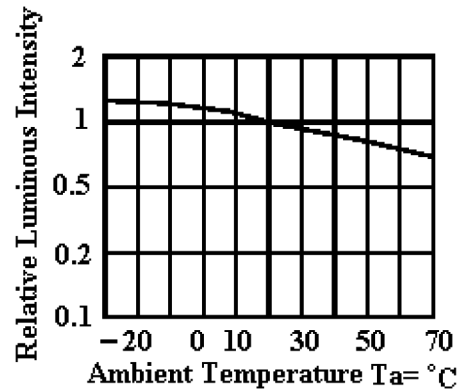
Forward current vs. Forward Voltage



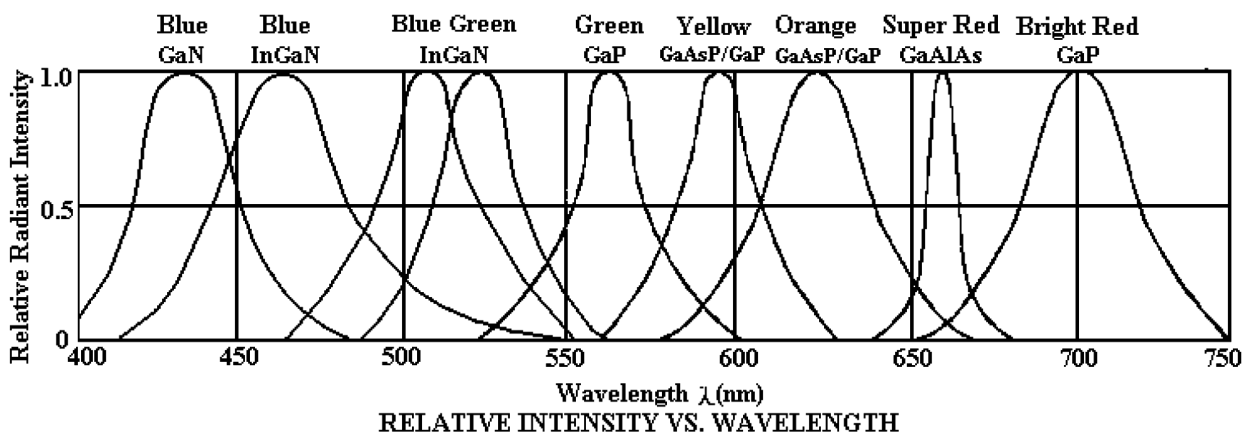
Forward current Derating curve



Luminous Intensity vs. Forward current



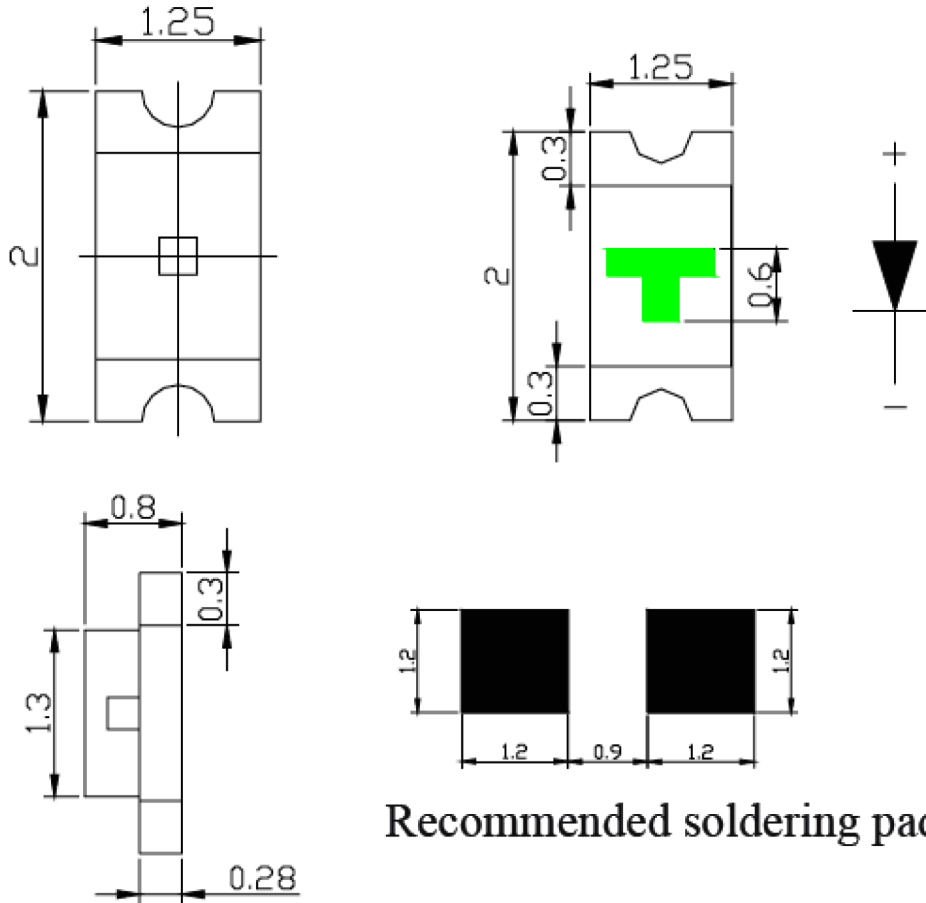
Luminous Intensity vs. Ambient Temperature



LED, 1.25mm



Dimensions:



Dimensions : Millimetres
 All tolerance shall be
 ±0.02mm

Recommended soldering pad design

Part Number Table

Description	Part Number
LED, 1.25mm, Orange-Red, 150mcd, 635nm	MCL-S270SAC-ML

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