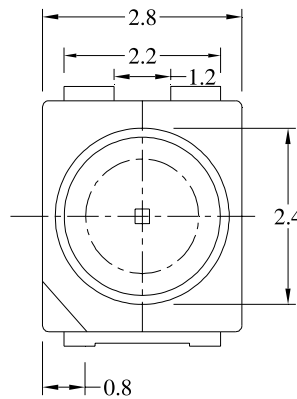
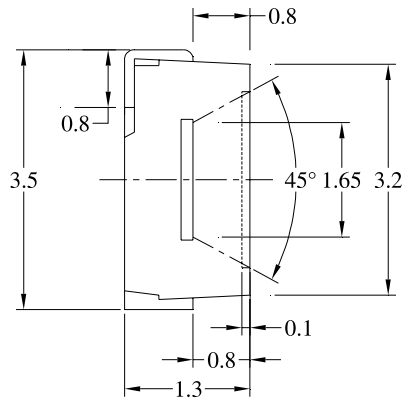


3.2mm × 2.8mm 0.5W SMD Type



Package Dimensions:



All dimensions are in mm
Tolerance: $\pm 0.25\text{mm}$

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
LED Junction Temperature	T_j	110	$^\circ\text{C}$
Power Dissipation	P_D	420	mW
Reverse Voltage	V_R	5	V
D.C. Forward Current	I_f	150	mA
Pulsed Forward Current (1 / 10 Duty Cycle, 0.1ms Pulse Width)	I_f (Peak)	300	mA
Operating Temperature Range	$T_{opr.}$	-40 to +75	$^\circ\text{C}$
Storage Temperature Range	$T_{stg.}$	-40 to +105	$^\circ\text{C}$
Soldering Temperature	$T_{sld.}$	Reflow Soldering: 260°C for 10sec. Hand Soldering: 350°C for 3sec.	
Electric Static Discharge Threshold (HBM)	ESD	6,000	V
Thermal Resistance Junction to Board (Heat Sink)	$R\Phi_{J-B}$	26	$^\circ\text{C/W}$

Electrical & Optical Characteristics:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Flux*	Φ_v	$I_f = 150\text{mA}$	3	4	-	lm
Forward Voltage	V_f	$I_f = 150\text{mA}$	-	3.2	3.8	V
Peak Wavelength	λ_p	$I_f = 150\text{mA}$	-	-	-	nm
Dominant Wavelength	λ_d	$I_f = 150\text{mA}$	-	465	-	nm
Reverse Current	I_r	$V_r = 5\text{V}$	-	-	50	μA
Viewing Angle	$2\Phi_{1/2}$	$I_f = 150\text{mA}$	-	120	-	deg
Spectrum Line Halfwidth	$\Delta\lambda$	$I_f = 150\text{mA}$	-	26	-	nm

Note : *Luminous Flux is converted from Luminous Intensity.

1. The data is tested by an IS tester.

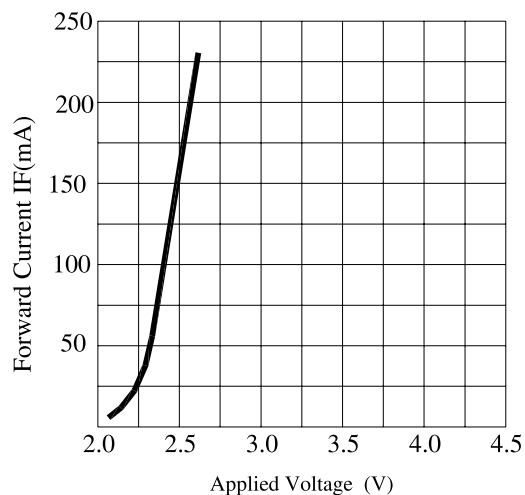
2. Customer's special requirements are also welcome.

3.2mm × 2.8mm 0.5W SMD Type

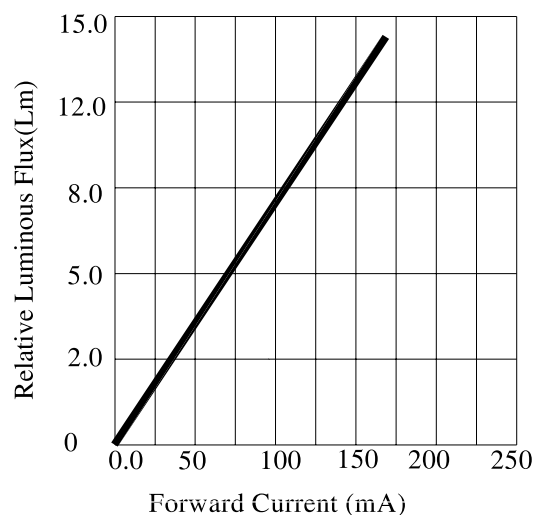


Typical Electrical & Optical Characteristics Curves:

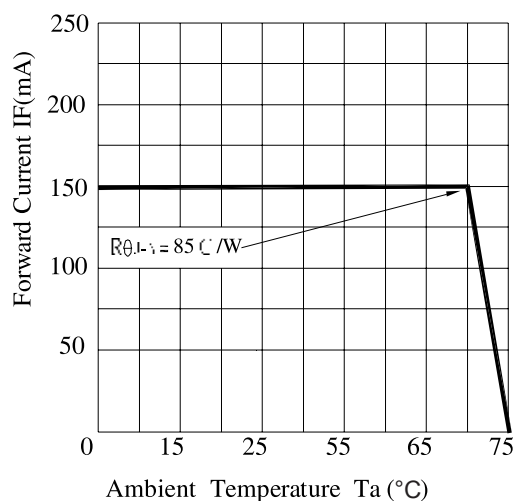
(25°C Ambient temperature unless otherwise noted)



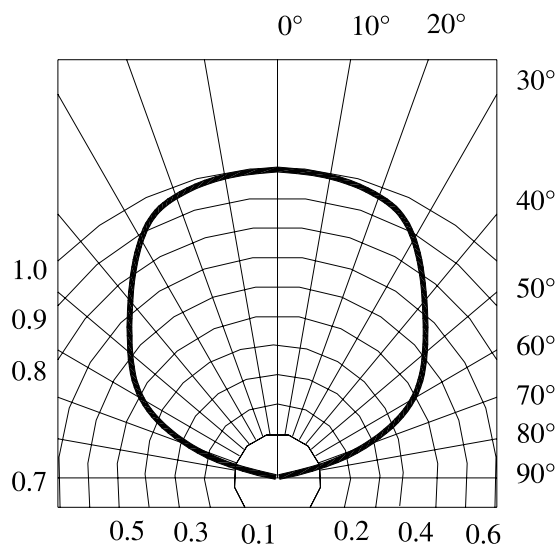
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Intensity



Ambient Temperature VS. Forward Current



Radiation Diagram

3.2mm × 2.8mm 0.5W

SMD Type



Recommended Storage Environment:

- Temperature: 5°C to 30°C (41°F to 86°F)
- Humidity: 60% RH Max.
- Use within 7 days after opening of sealed vapour/ESD barrier bags

If moisture absorbent material (silica gel) has faded away or LEDs have exceeded the storage time, baking treatment should be performed using the following conditions:

- Baking Treatment : 60 ± 5°C for 24 hours
- Fold the opened bag firmly and keep in dry environment

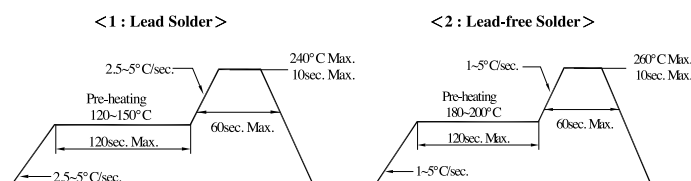
Soldering

Reflow Soldering			Hand Soldering	
	Lead Solder	Lead-free Solder		
Pre-heat	12°C ~ 150°C	180°C ~ 200°C	Temperature	350°C Max.
Pre-heat Time	120sec. max.	120sec. max	Soldering Time	3sec. Max (one time only)
Peak Temperature	240°C max.	260°C max.		
Soldering Time	10sec max.	10sec. max		
Condition	Refer to Temperature Profile 1	Refer to Temperature Profile 2		

*After reflow soldering rapid cooling should be avoided.

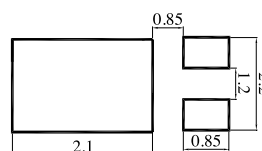
Temperature-profile (surface of circuit board)

Use the conditions shown under figure.



Recommended Soldering Pad Design

Use the conditions shown under figure.



Part Number Table

LED Chip		Lens Colour	Part Number
Material	Emitting Colour		
AlGaInP / Si	Yellow	Water Clear	703-1037

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