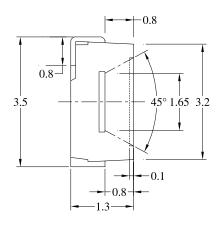
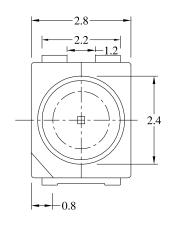
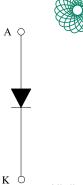
# 3.2mm × 2.8mm 0.5W SMD Type



## **Package Dimensions:**







RoHS Compliant

All dimensions are in mm Tolerance: ±0.25mm

## Absolute Maximum Ratings at Ta=25°C

Parameter		Rating	Unit
LED Junction Temperature	Tj	110	°C
Power Dissipation	Po	570	mW
Reverse Voltage	VR	5	V
D.C. Forward Current	lf	150	mA
Pulsed Forward Current (1 / 10 Duty Cycle, 0.1ms Pulse Width)	If (Peak)	300	mA
Operating Temperature Range	Topr.	-40 to +75	°C
Storage Temperature Range	Tstg.	-40 to +105	°C
Soldering Temperature	Tsld.	Reflow Soldering: 260°C for 10sec. Hand Soldering: 350°C for 3sec.	
Electric Static Discharge Threshold (HBM)	ESD	6,000	٧
Thermal Resistance Junction to Board (Heat Sink)	<b>R</b> ФЈ-В	27	°C/W

### **Electrical & Optical Characteristics:**

Parameter	Symbol	Condition	Min.	Тур.	Max.	Unit
Luminous Flux*	Ф۷	If = 150mA	3	4	-	lm
Forward Voltage	Vf	If = 150mA	-	3.2	3.8	V
Peak Wavelength	λр	If = 150mA	-	-	-	nm
Dominant Wavelength	λd	If = 150mA	-	465	-	nm
Reverse Current	Ir	Vr = 5V	-	-	50	μΑ
Viewing Angle	2Ф1⁄2	If = 150mA	-	120	-	deg
Spectrum Line Halfwidth	Δλ	If = 150mA	-	26	-	nm

Note: \*Luminous Flux os converted from Luminous Intensity.

1. The data is tested by an IS tester.

2. Customer's special requirements are also welcome.

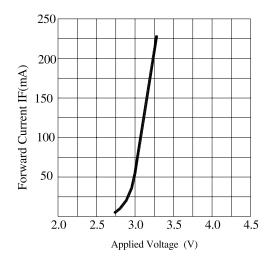


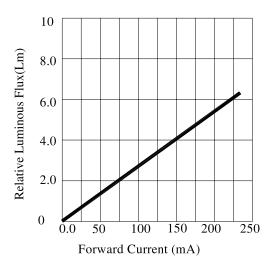
# 3.2mm × 2.8mm 0.5W SMD Type



### **Typical Electrical & Optical Characteristics Curves:**

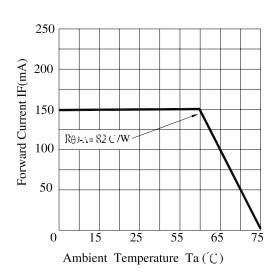
(25°C Ambient temperature unless otherwise noted)

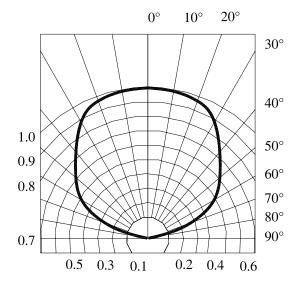




Forward Current VS. Applied Voltage

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			
Peak Temperature	240°C max.	260°C max.	]	2000 May	
Soldering Time	10sec max.	10sec. max	Soldering Time	3sec. Max (one time only)	
Condition	Refer to Temperature Profile 1	Refer to Temperature Profile 2			

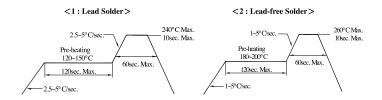
<sup>\*</sup>After reflow soldering rapid cooling should be avoided.

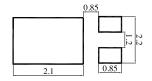
#### Temperature-profile (surface of circuit board)

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	Lens Colour	rait Number	
InGaN / Al <sub>2</sub> O <sub>3</sub>	Blue	Water Clear	703-1036	

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