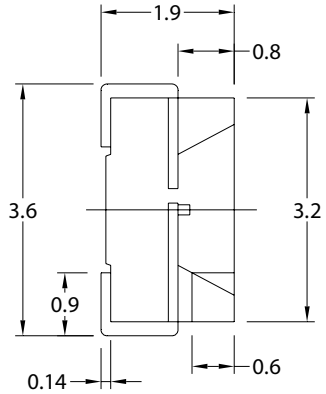
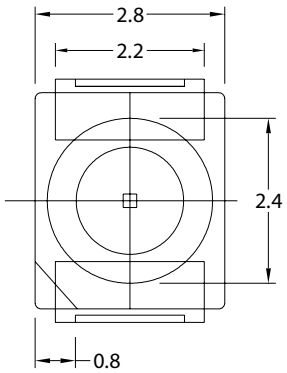
3.2mm × 2.8mm 0.06W
SMD Type

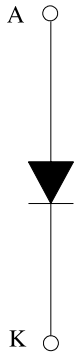
multicomp PRO

RoHS Compliant

Package Dimensions:







All dimensions are in mm
Tolerance: ±0.25mm

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Power Dissipation	PD	120	mW
Reverse Voltage	VR	5	V
D.C. Forward Current	If	30	mA
Pulsed Forward Current (1 / 10 Duty Cycle, 0.1ms Pulse Width)	If (Peak)	100	mA
Operating Temperature Range	Topr.	-40 to +100	°C
Storage Temperature Range	Tstg.	-40 to +100	°C
Soldering Temperature	Tsld.	Reflow Soldering: 260°C for 10sec. Hand Soldering: 350°C for 3sec.	
Electric Static Discharge Threshold (HBM)	ESD	6,000	V

Electrical & Optical Characteristics: Hyper Red

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity		Iv	If = 20mA	1,000	2,098	-	mcd
Luminous Flux		Φv	If = 20mA	-	5,100	-	mlm
Forward Voltage		Vf	If = 20mA	-	3.2	4	V
Correlated Colour Temperature	WA	CCT	If = 20mA	5,000	-	5,250	K
	WB			5,250	-	5,500	
	WC			5,500	-	5,750	
	WD			5,750	-	6,000	
Colour Rendering Index (Ra)		CRI	If = 20mA	-	64	-	Ra
Reverse Current		Ir	Vr = 5V	-	-	50	μA
Viewing Angle		2θ ½	If = 20mA	-	120	-	deg

Note: 1. The data is tested by an IS tester
2. Customer's special requirements are also welcome.

Typical Electrical & Optical Characteristics Curves:

(25°C Ambient temperature unless otherwise noted)

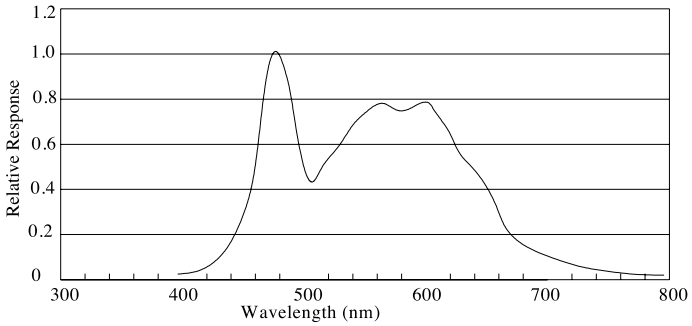
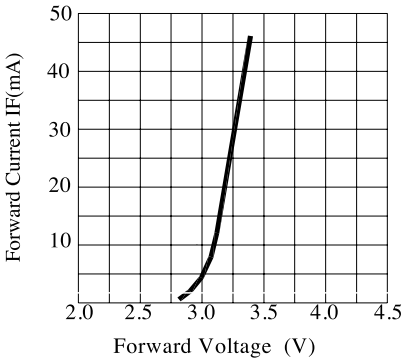
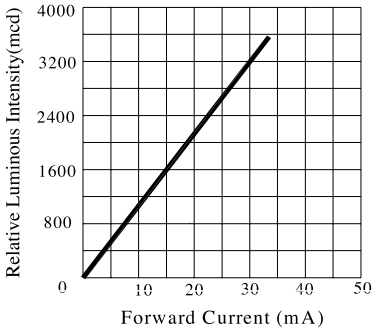


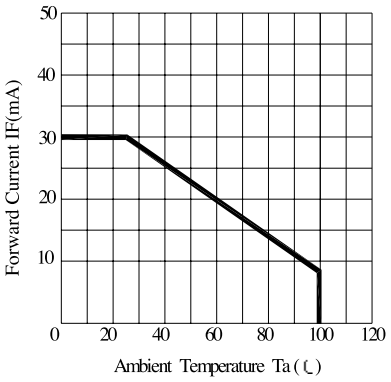
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



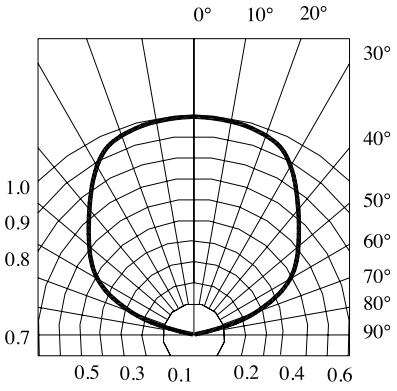
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Intensity



Ambient Temperature VS. Forward Current



Radiation Diagram

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

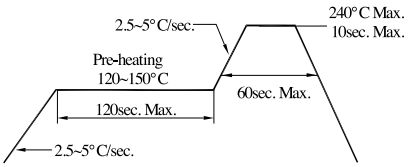
Reflow Soldering			Hand Soldering	
	Lead Solder	Lead-free Solder		
Pre-heat	12°C ~ 150°C	180°C ~ 200°C	Temperature	350°C Max.
Pre-heat Time	120sec. Max.	120sec. Max	Soldering Time	3sec. Max (one time only)
Peak Temperature	240°C Max.	260°C Max.		
Soldering Time	10sec Max.	10sec. Max		
Condition	Refer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

*After reflow soldering rapid cooling should be avoided.

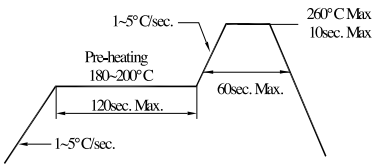
Temperature-profile (surface of circuit board)

Use the conditions shown under figure.

<1 : Lead Solder>

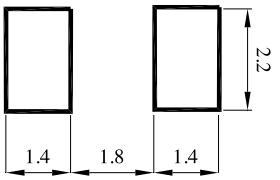


<2 : Lead-free Solder>



Recommended Soldering Pad Design

Use the conditions shown under figure.



Part Number Table

LED Chip		Lens Colour	Part Number
Material	Emitting Colour		
InGaN / Sapphire	White	Yellow diffused	703-1026