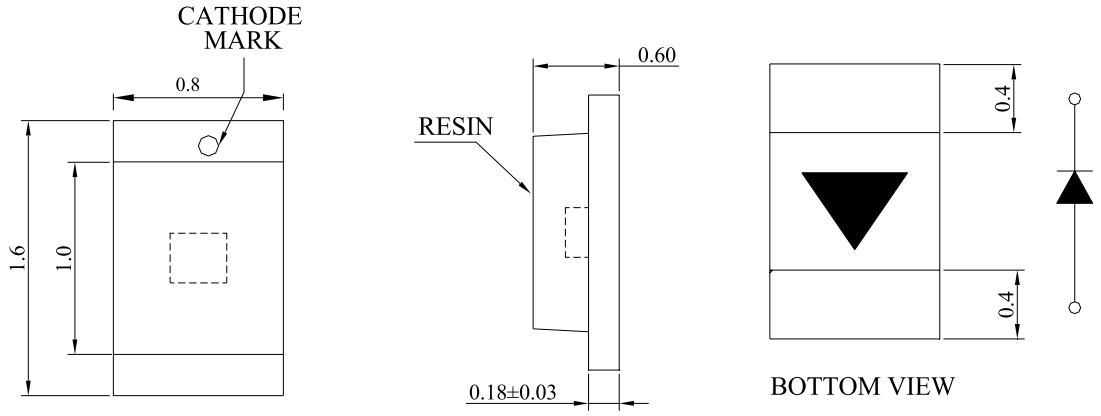
SMD Chip LED

multicomp PRO

Package Dimensions:

RoHS Compliant



All dimensions are in mm
Tolerance: ±0.1mm

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	78	°C
Reverse Voltage	V_R	5	V
D.C. Forward Current	If	30	mA
Pulsed Forward Current (1 / 10 Duty Cycle, 0.1ms Pulse Width)	If (Peak)	80	mA
Operating Temperature Range	Topr.	-40 to +80	°C
Storage Temperature Range	Tstg.	-40 to +85	°C
Soldering Temperature	Tsld.	Reflow Soldering: 260°C for 10sec.	

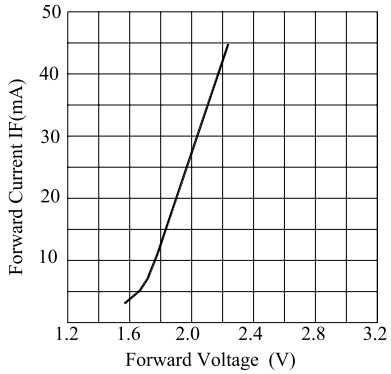
Electrical & Optical Characteristics: Hyper Red

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	Iv	If = 20mA	-	11	-	mcd
Forward Voltage	Vf	If = 20mA	1.9	-	2.6	V
Peak Wavelength	λp	If = 20mA	-	567	-	nm
Dominent Wavelength	λd	If = 20mA	-	572	-	nm
Reverse Current	Ir	Vr = 5V	-	-	100	μA
Viewing Angle	2θ ½	If = 20mA	-	140	-	deg
Spectrum Line Halfwidth	Δλ	If = 20mA	-	30	-	nm

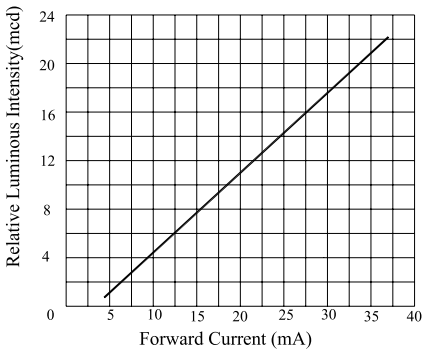
Note: 1. The data is tested by an IS tester
2. Customer's special requirements are also welcome.

Typical Electrical & Optical Characteristics Curves:

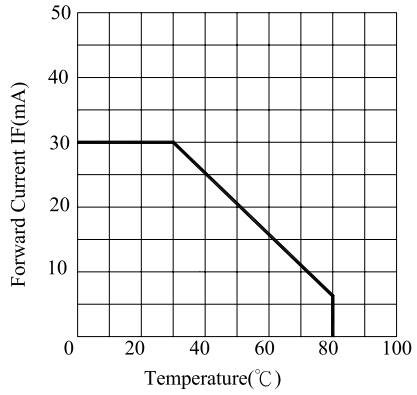
(25°C Ambient temperature unless otherwise noted)



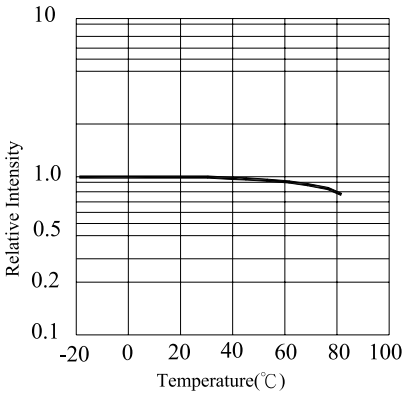
FORWARD CURRENT VS. APPLIED VOLTAGE



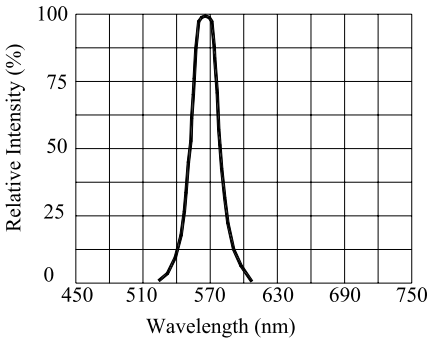
RELATIVE INTENSITY VS. FORWARD CURRENT



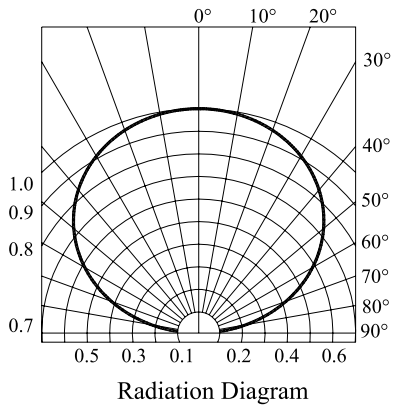
FORWARD CURRENT VS. AMBIENT TEMPERATURE



RELATIVE INTENSITY VS. AMBIENT TEMPERATURE



RELATIVE INTENSITY VS. WAVELENGTH



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

Reflow Soldering

Recommended use of upper and lower heater type reflow furnace.

- 260°C max for up to 10 seconds, one time only
- Pre-heat is 150°C max for up to 2 minutes max
- In case of screen-printing, keep metal mask thickness between 0.2mm and 0.3mm

Cleaning

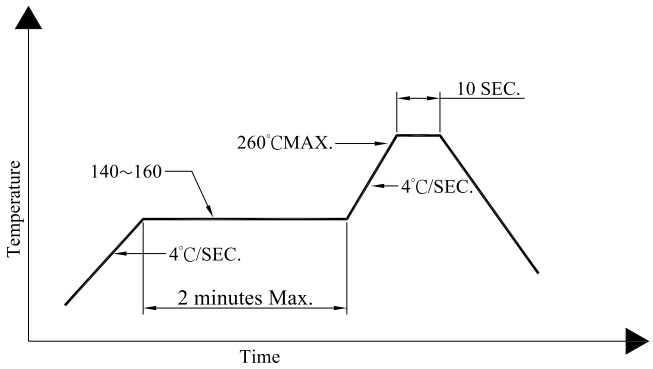
Surface condition of this device may change when organic solvents such as trichloroethylene or acetone were applied.

- Avoid using organic solvent
- Recommend ultrasonic method 300W max.

Packaging

- EIA-481A standard package
- In 8mm tape on 4,000pcs diameter reels sealed in vapour/ESD barrier bags

Reflow Temp / Time:



Part Number Table

LED Chip		Lens Colour	Part Number
Material	Emitting Colour		
GaP / GaP	Green	White diffused	703-0109