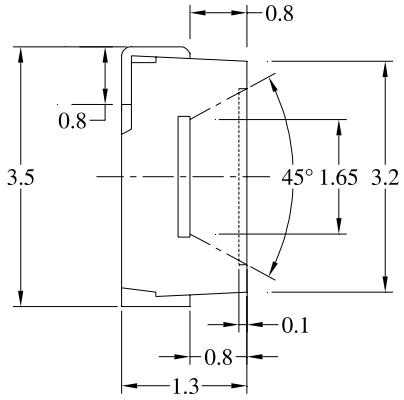
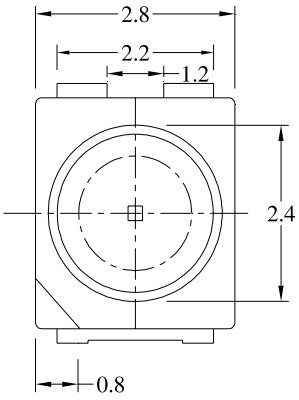
3.2mm × 2.8mm
0.5W SMD Type

multicomp PRO

Package Dimensions:





RoHS Compliant

All dimensions are in mm
Tolerance: ±0.25mm

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
LED Junction Temperature	Tj	110	°C
Power Dissipation	PD	570	mW
Reverse Voltage	VR	5	V
D.C. Forward Current	If	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	V
Thermal Resistance Junction to Board (Heat Sink)	RΦJ-B	31	°C/W

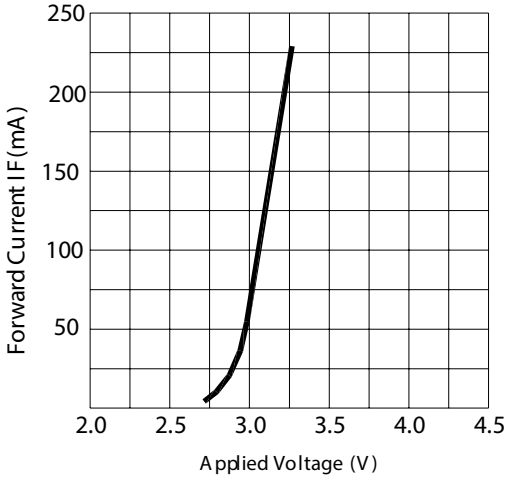
Electrical & Optical Characteristics:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Flux*	Φv	If = 150mA	12	16.1	-	lm
Forward Voltage	Vf	If = 150mA	-	3.2	3.8	V
Peak Wavelength	λp	If = 150mA	-	-	-	nm
Dominant Wavelength	λd	If = 150mA	-	525	-	nm
Reverse Current	Ir	Vr = 5V	-	-	50	μA
Viewing Angle	2Φ½	If = 150mA	-	120	-	deg
Spectrum Line Halfwidth	Δλ	If = 150mA	-	35	-	nm

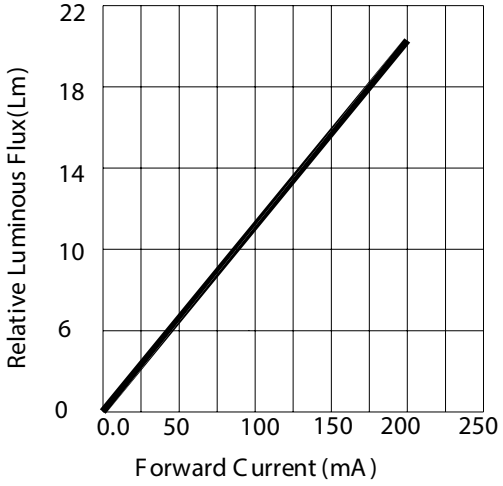
Note : *Luminous Flux os converted from Luminous Intensity.
1. The data is tested by an IS tester.
2. Customer's special requirements are also welcome.

Typical Electrical & Optical Characteristics Curves:

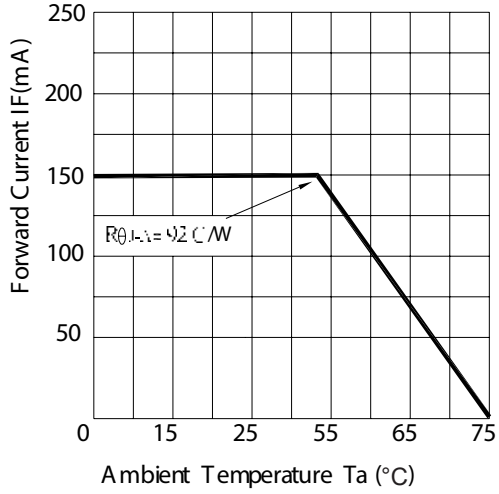
(25°C Ambient temperature unless otherwise noted)



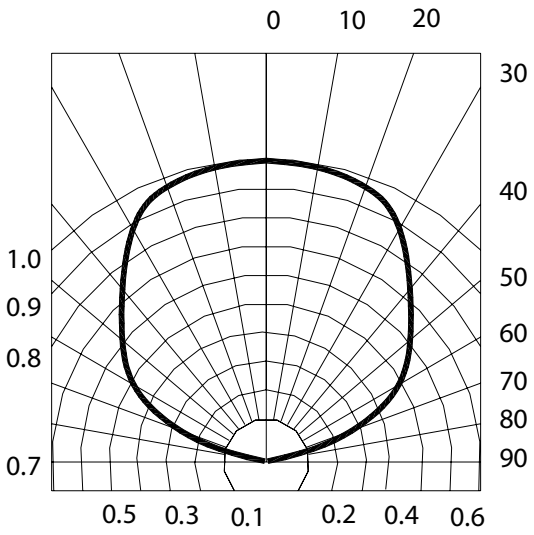
Forward Current V S. Applied Voltage



Forward Current VS. Lum inous Intensity



Ambient Temperature V S. 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

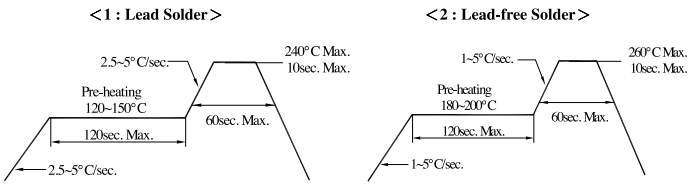
Soldering

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.

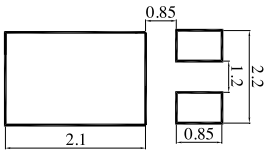
Temperature-profile (surface of circuit board)

Use the conditions shown under figure.



Recommended Soldering Pad Design

Use the conditions shown under figure.



Part Number Table

LED Chip		**Lens Colour**	**Part Number**
Material	**Emitting Colour**		
InGaN / Al_2O_3	True Green	Water Clear	703-1038