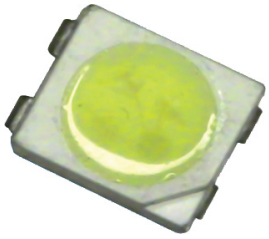
5mm×5mm SMD Type

multicomp PRO

RoHS Compliant



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
Peak Current (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	
Soldering Temperature	Tsld.	Dip Soldering: 260°C for 10sec. Hand Soldering: 350°C for 3sec.	
Electric Static Discharge Threshold (HBM)*	ESD	6000	V

* The values are based on 1 die performance.

Electrical and Optical Characteristics

Parameter		Symbol	Condition	Value			Unit
				Min.	Typ.	Max.	
Luminous Intensity*2		Iv	IF = 20mA*1	6000	7500	-	mcd
Luminous Flux*2		V	IF = 20mA*1	-	15	-	mlm
Forward Voltage*2		Vf	IF = 20mA*1	-	3.2	4.0	V
Correlated Colour Temperature*2	WE	CCT	IF = 20mA*1	6000	-	6250	K
	WF			6250	-	6500	
	WG			6500	-	6750	
	WH			6750	-	7000	
Colour Rendering Index (RA)		CRI	IF = 20mA	-	95	-	Ra
Reverse Current*1		IR	Vr = 5V*1	-	-	50	µA
View Angle*2		2θ½	IF = 20mA*1	-	120	-	Deg.

Notes:

1. The data is tested by an IS tester.
2. Customer's special requirements are also welcome.
3. *1 for each die.
4. *2 when all LED dies are operated simultaneously.

Storage

Recommended storage environment:

- Temperature: 5°C to 30°C (41°F to 86°F)
- Humidity: 60% RH Max.
- Moisture measures: Refer to Moisture-sensitive label on reels package bags. If unused LEDs remain, they should be stored in moisture proof packages, such as a sealed container with packages of moisture absorbant material (silica gel). It is also recommended to return the LEDs to the original moisture proof bag and to reseal it again (fold the open bag firmly shut and keep in a dry environment.

Soldering:

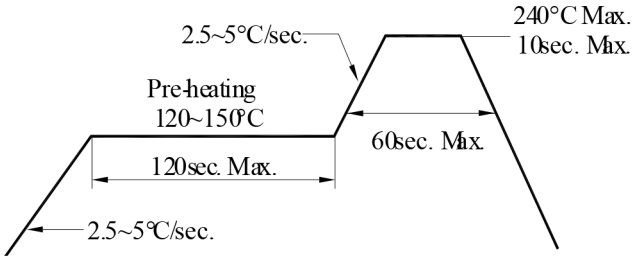
Reflow Soldering			Hand Soldering	
	Lead Solder	**Lead-free Solder**		
Pre-heat	120 ~ 150°C	180 ~ 200°C	Temperature	350°C Max.
Pre-heat Time	120sec. Max.	120sec. Max.	Soldering Time	3 Sec. Max. (one time only)
Peak Temperature	240°C Max.	260°C Max.		
Soldering Time	10sec. max.	10sec. Max.		
Condition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

* After reflow soldering rapid cooling should be avoided.

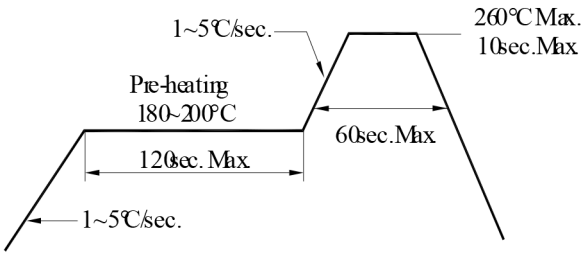
Temperature-prole (Surface of circuit board):

Use the following conditions shown in the figure.

＜1 : Lead Solder＞



＜2 : Lead-free Solder＞



Typical Electrical / Optical Characteristic Curves:

(25°C Ambient Temperature unless otherwise noted)

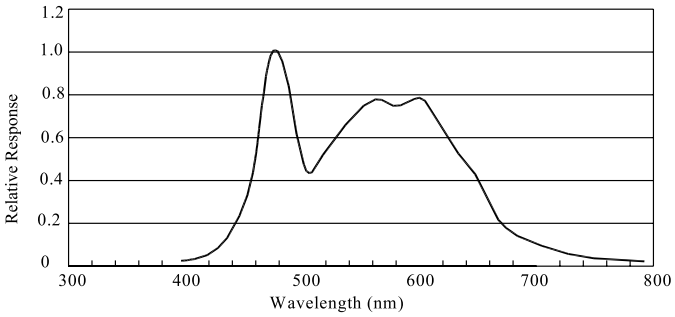
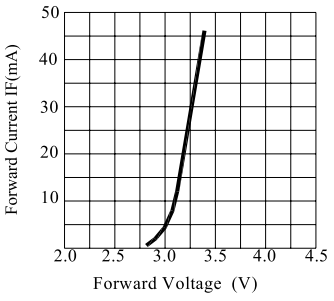
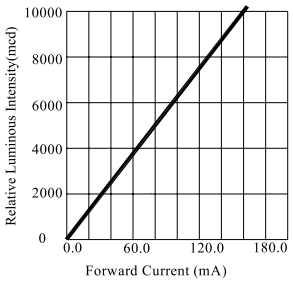


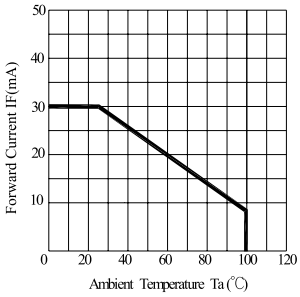
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



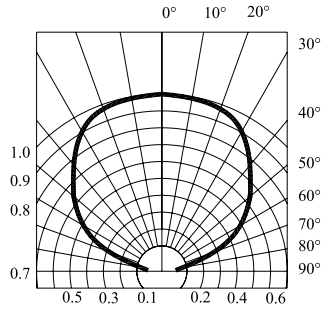
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Intensity

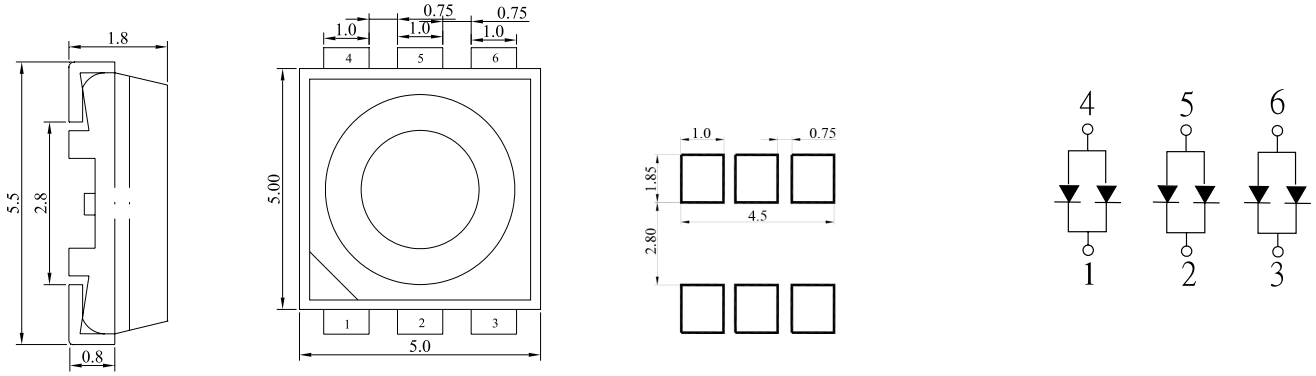


Ambient Temperature VS. Forward Current



Radiation Diagram

Diagram



Part Number Table

LED Chip		Lens Colour	Part Number
Material	Emitting Colour		
AlGaInP / Sapphire	White	Yellow Diffused	703-1043

Dimensions : Millimetres