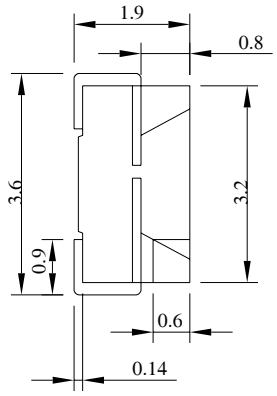
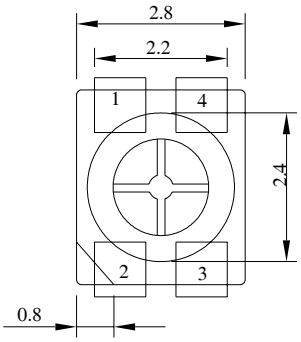
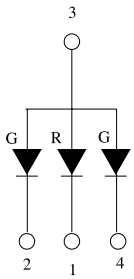
3.2mm × 2.8mm 0.06W
SMD Type

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	P_D	72	°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)	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.	

Electrical & Optical Characteristics: Hyper Red

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Flux	Iv	If = 20mA	110	220	-	mcd
Forward Voltage	Vf	If = 20mA	-	1.9	2.4	V
Peak Wavelength	λp	If = 20mA	-	632	-	nm
Dominent Wavelength	λd	If = 20mA	-	625	-	nm
Reverse Current	Ir	Vr = 5V	-	-	100	μA
Viewing Angle	2θ ½	If = 20mA	-	120	-	deg
Spectrum Line Halfwidth	Δλ	If = 20mA	-	20	-	nm

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

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	120	°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)	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	300	V

Electrical & Optical Characteristics: True Green

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Flux	Iv	If = 20mA	370	710	-	mcd
Forward Voltage	Vf	If = 20mA	-	3.2	4	V
Peak Wavelength	λp	If = 20mA	-	-	-	nm
Dominent Wavelength	λd	If = 20mA	-	520	-	nm
Reverse Current	Ir	Vr = 5V	-	-	50	μA
Viewing Angle	2θ ½	If = 20mA	-	120	-	deg
Spectrum Line Halfwidth	Δλ	If = 20mA	-	35	-	nm

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

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	120	°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)	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	300	V

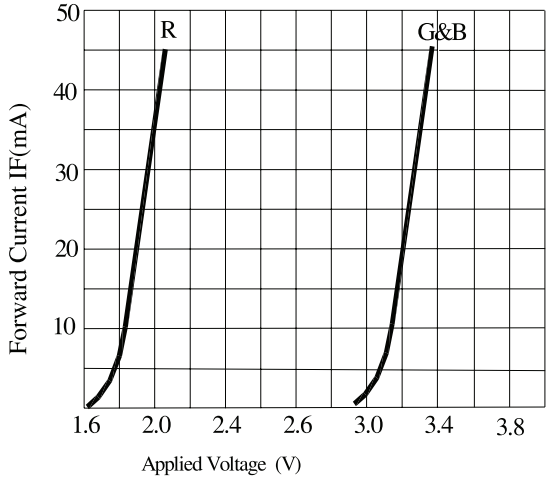
Electrical & Optical Characteristics: Blue

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Flux	Iv	If = 20mA	110	230	-	mcd
Forward Voltage	Vf	If = 20mA	-	3.2	4	V
Peak Wavelength	λp	If = 20mA	-	-	-	nm
Dominent Wavelength	λd	If = 20mA	-	465	-	nm
Reverse Current	Ir	Vr = 5V	-	-	50	μA
Viewing Angle	2θ ½	If = 20mA	-	120	-	deg
Spectrum Line Halfwidth	Δλ	If = 20mA	-	26	-	nm

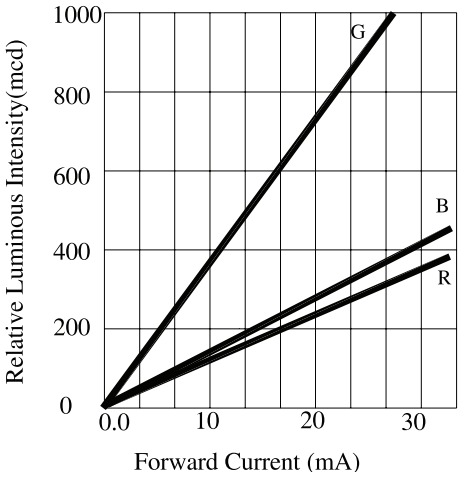
Note: 1. The data is tested by an IS tester
2. Customer's special requirements are also welcome.

Typical Electrical & Optical Characteristics Curves:

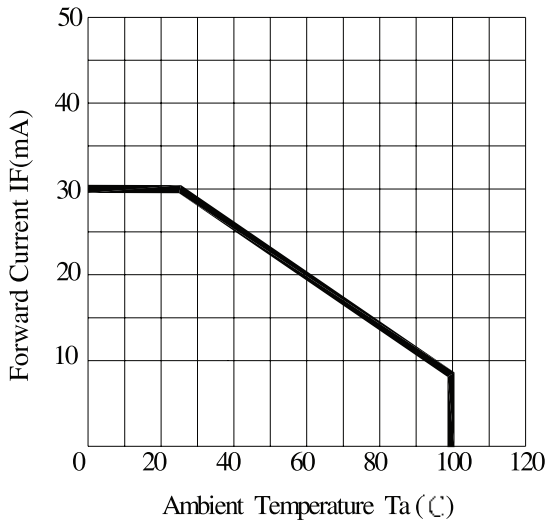
(25°C Ambient temperature unless otherwise noted)



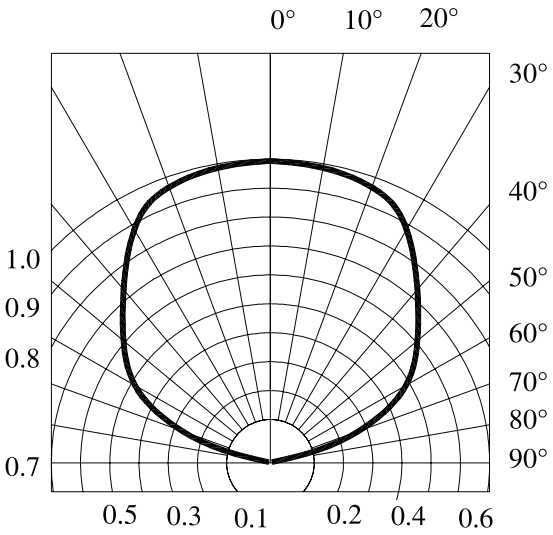
Forward Current VS. Applied Voltage



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

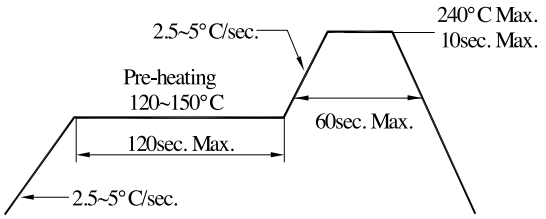
Reflow Soldering			**Hand Soldering**	
	Lead Solder	Lead-free Solder		
Pre-heat	12°C ~ 150°C	180°C ~ 200°C	Temperature	350°C Max.
Pre-heat Time	120sec. Max.	120sec. Max	Soldering Time	3sec. Max (one time only)
Peak Temperature	240°C Max.	260°C Max.		
Soldering Time	10sec Max.	10sec. Max		
Condition	Refer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

*After reflow soldering rapid cooling should be avoided.

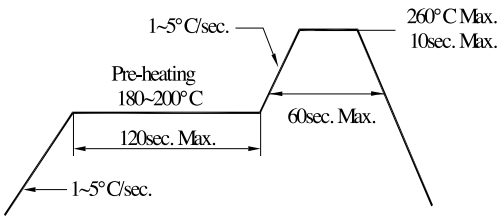
Temperature-profile (surface of circuit board)

Use the conditions shown under figure.

＜1 : Lead Solder＞

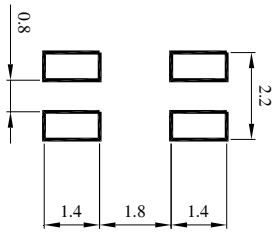


＜2 : Lead-free Solder＞



Recommended Soldering Pad Design

Use the conditions shown under figure.



Part Number Table

LED Chip		Lens Colour	Part Number
Material	Emitting Colour		
AlGaInP / GaAs	Hyper Red	Water Clear	703-1028
InGaN / Sapphire	True Green		
InGaN / Sapphire	Blue		