

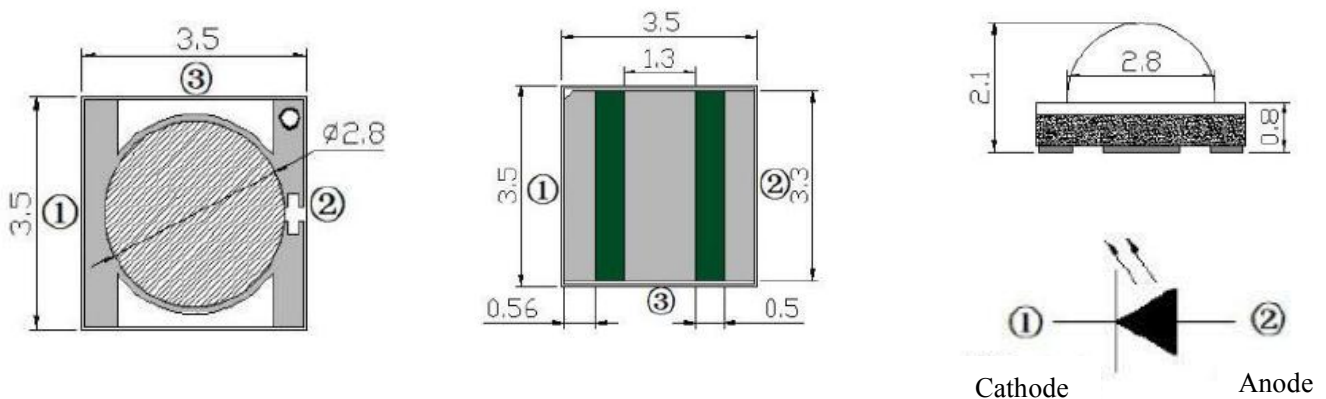
■ Typical Applications

- Indoor Lighting.
- Outdoor Lighting.
- General use.

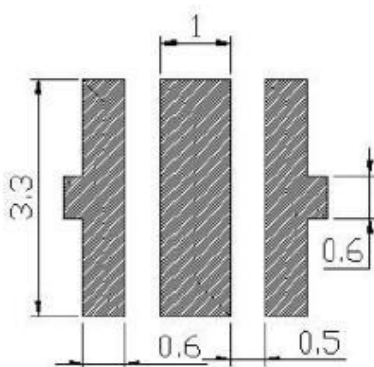
■ Features

- Chip Material: AlGaAs.
- Lens Color: Water Clear.
- Emitted Color: Infrared.
- 3.50×3.50×2.10mm (3535) standard package.
- Ceramic Package.
- Suitable for all SMT assembly methods.
- Compatible with infrared and vapor phase reflow solder process.
- Compatible with automatic placement equipment.

■ Package Dimensions



■ Recommended size of pad



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.10\text{mm}$ (0.004') unless otherwise specified.

■ Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Maximum	Unit
Peak Forward Current (Duty 1/10 @1KHz)	I _{FP}	3000	mA
Forward Current	I _F	1000	mA
Junction Temperature	T _j	115	°C
Electrostatic Discharge(HBM)	ESD	2000	V
Reverse Voltage	V _R	5	V
Operating Temperature Range	Topr	-40°C to + 100°C	
Storage Temperature Range	Tstg	-40°C to + 100°C	
Soldering Temperature	Tsol	Reflow soldering (245°C for 10sec)	

Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. The temperature of Aluminum PCB do not exceed 55°C.

■ Electrical/Optical Characteristics at Ta=25°C

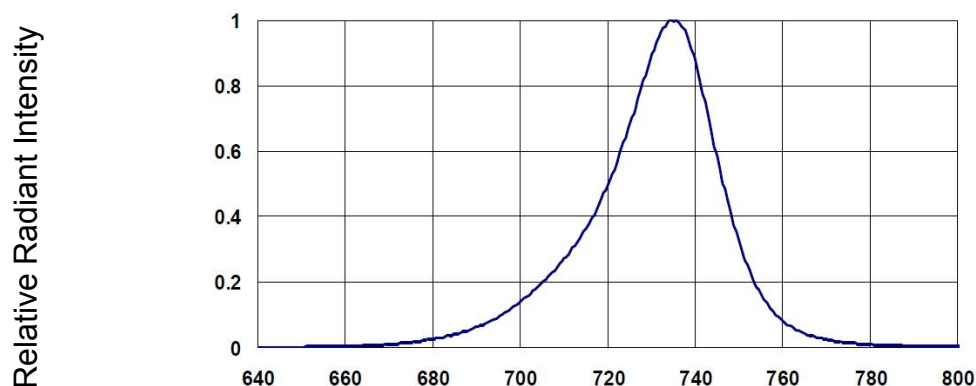
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F =350mA	1.7	—	2.8	V
		I _F =1000mA	1.8	—	3.0	
Radiometric	φ _e	I _F =350mA	—	380	—	mW
		I _F =1000mA	—	880	—	
Radiation intensity	I _e	I _F =350mA	70	95	—	mW/sr
		I _F =1000mA	180	250	—	
Peak Wavelength	λ _p	I _F =350mA	—	745	—	nm
Spectral Line Half-Width	Δλ		—	35	—	nm
Viewing Angle	2θ _{1/2}	I _F =350mA	—	120	—	deg
Reverse Current	I _R	V _R =5V	—	—	10	uA

Notes:

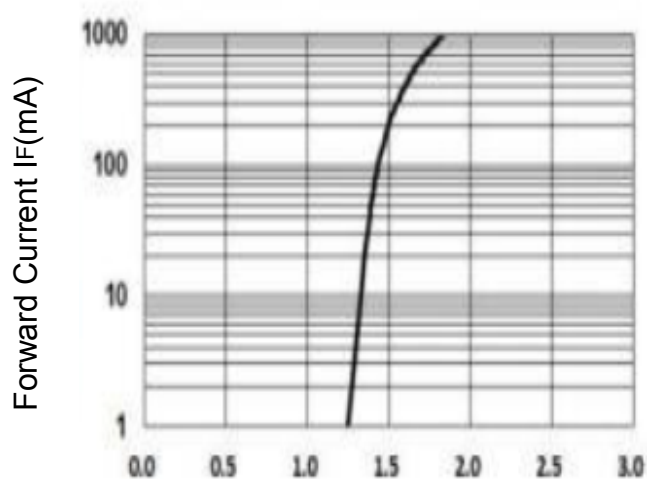
1. Tolerance of Radiant Power ±15%.
2. Tolerance of Forward Voltage ±0.1V.
3. Tolerance of Peak Wavelength ±1nm.

■ Typical Electrical/Optical Characteristic Curves

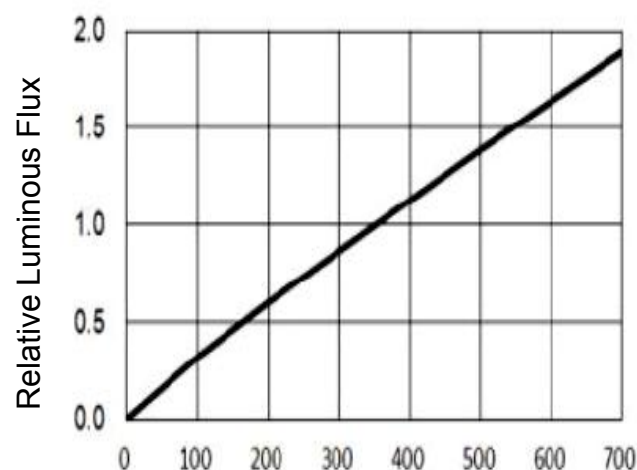
(25°C Ambient Temperature Unless Otherwise Noted)



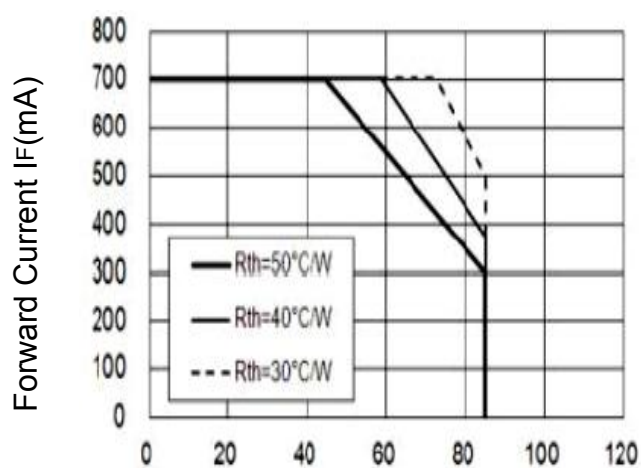
Wavelength λ (nm)
Relative Intensity Vs. Wavelength



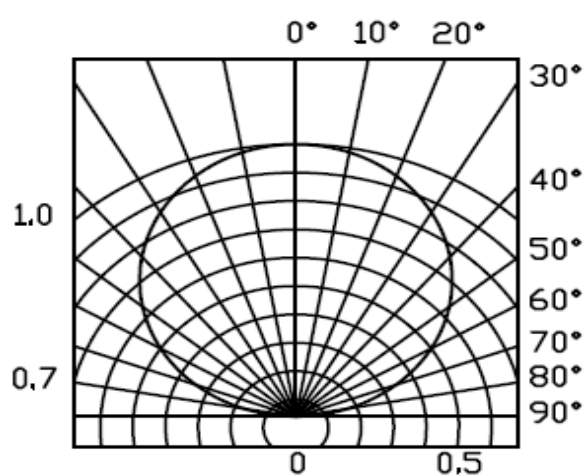
Forward Voltage V_F (V)
Forward Current vs. Forward Voltage



Forward Current I_F (mA)
Relative Luminous Intensity vs.
Forward Current

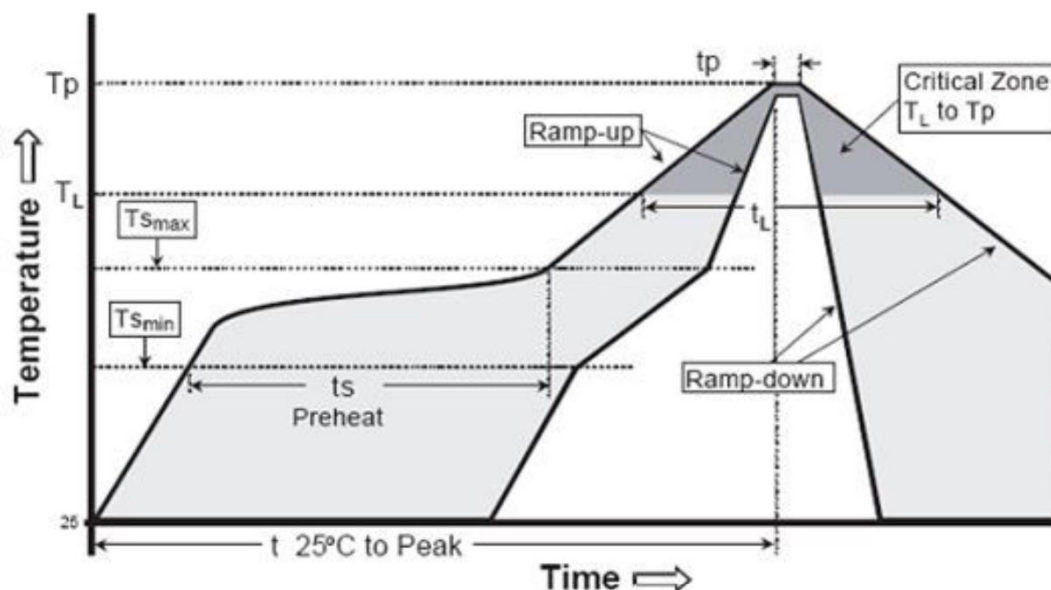


Ambient Temperature T_A (°C)
Forward Current Derating Curve



Spatial Distribution

Reflow soldering instructions

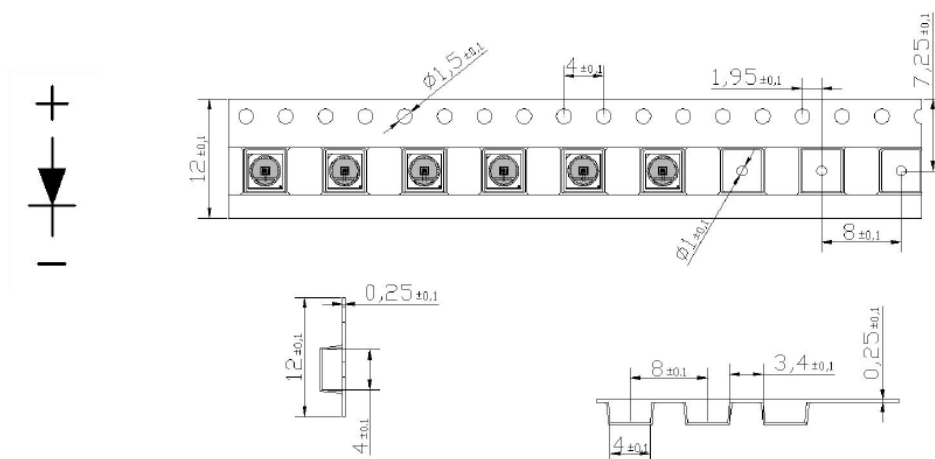


Profile Feature	Lead-Based solder	Lead-Free Solder
Average Ramp-Rate (Ts _{max} to Tp)	3°C/second max	3°C/second max
Preheat: Temperature Min (Ts _{min})	100°C	150°C
Preheat: Temperature Max (Ts _{max})	150°C	200°C
Preheat: Time (ts _{min} to ts _{max})	60-120 seconds	60-180 seconds
Time Maintained Above: Temperature (T _L)	183°C	217°C
Time Maintained Above: Time (t _L)	60-150 seconds	60-150 seconds
Peak/Classification Temperature (Tp)	215°C	260°C
Time Within 5°C of Actual Peak Temperature (tp)	10-15 seconds	20-40 seconds
Ramp-Down Rate	6°C/second max	6°C/second max
Time 25°C to Peak Temperature	6 minutes max	8 minutes max

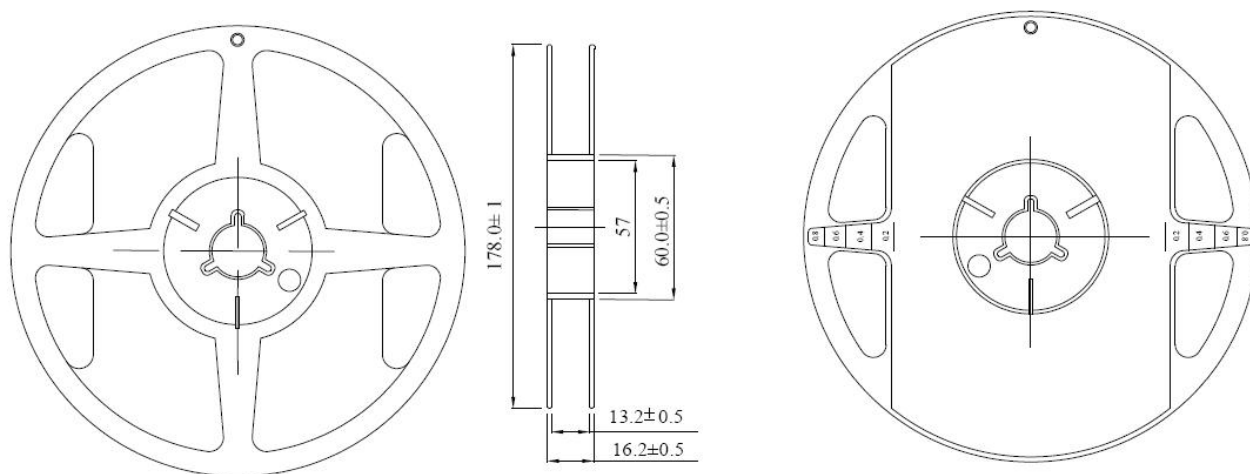
Note:

1. recommend to use a convection type reflow machine with 8 zones.
2. recommend to use Lead-Free Paste with a melting point between 170°C-180°C.
3. the reflow soldering time should not be more than 400s.
4. all temperature means the temperature measured on the surface of the package body.
5. When using hot plate, the temperature is no more than 260 °C, the time is not more than 10seconds.

■ Carrier Tape Dimensions: Loaded quantity 1000 PCS per reel.



■ Dimensions for Reel



Notes:

- 1.All dimensions are in mm, tolerance is ± 2.0 mm unless otherwise noted.
- 2.Specifications are subject to change without notice.

■ Moisture Resistant Packaging

