

TH-UVxxxT0.5WPS15-3535F

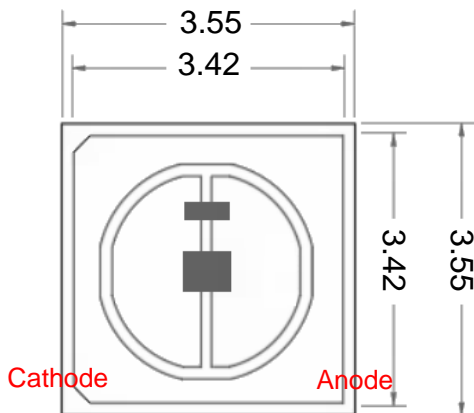


CAUTION

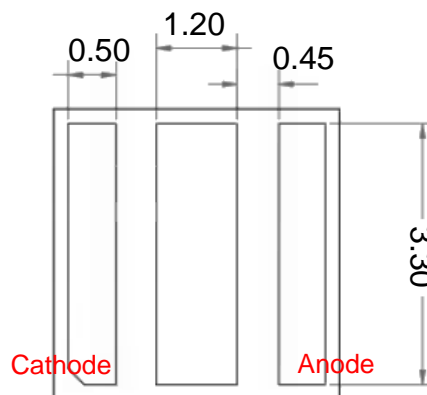
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



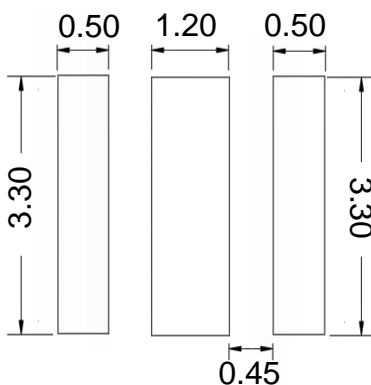
Mechanical Dimensions



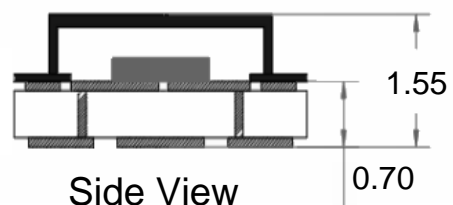
Front Side



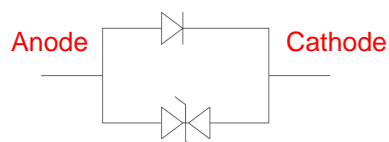
Back Side



Solder Pad of PCB



Side View



Zener Diode

Notes :

- [1] All dimensions are in millimeters.
- [2] Scale : none
- [3] Undefined tolerance is $\pm 0.2\text{mm}$



Electro-Optical characteristics at 100mA

(T_a=25℃, RH=30%)

| Items | Symbol | Condition | Min. | Typ. | Max. | Unit |
|---|-------------------------------|------------------------|------|------|------|------|
| Forward Current | I _F | | | 100 | | mA |
| Forward Voltage ^[4] | V _F | I _F = 100mA | 4.8 | | 7.0 | V |
| Radiant Flux ^[2] | Φ _e ^[3] | I _F = 100mA | 10 | 15 | 25 | mW |
| Peak Wavelength ^[1] 255nm:TH-UV255T0.5WPS15-3535F 265nm:TH-UV265T0.5WPS15-3535F 275nm:TH-UV275T0.5WPS15-3535F 285nm:TH-UV285T0.5WPS15-3535F 295nm:TH-UV295T0.5WPS15-3535F 305nm:TH-UV305T0.5WPS15-3535F 315nm:TH-UV315T0.5WPS15-3535F | λ _p | I _F = 100mA | 250 | 255 | 260 | nm |
| | | | 260 | 265 | 270 | |
| | | | 270 | 275 | 280 | |
| | | | 280 | 285 | 290 | |
| | | | 290 | 295 | 300 | |
| | | | 300 | 305 | 310 | |
| | | | 310 | 315 | 320 | |
| Viewing Angle | 2θ _{1/2} | I _F = 100mA | | 120 | | deg. |
| Spectrum Half Width | Δλ | I _F = 100mA | | 10 | | nm |
| Thermal Resistance | R _{θj-b} | I _F = 100mA | | 15.5 | | °C/W |

Absolute Maximum Ratings

| Parameter | Symbol | Absolute maximum Rating | Unit |
|-----------------------|------------------|-------------------------|------|
| Forward Current | I _F | 150 | mA |
| Power Dissipation | P _D | 1050 | mW |
| Operating Temperature | T _{opr} | -30 ~ +60 | °C |
| Storage Temperature | T _{stg} | -40 ~ +100 | °C |

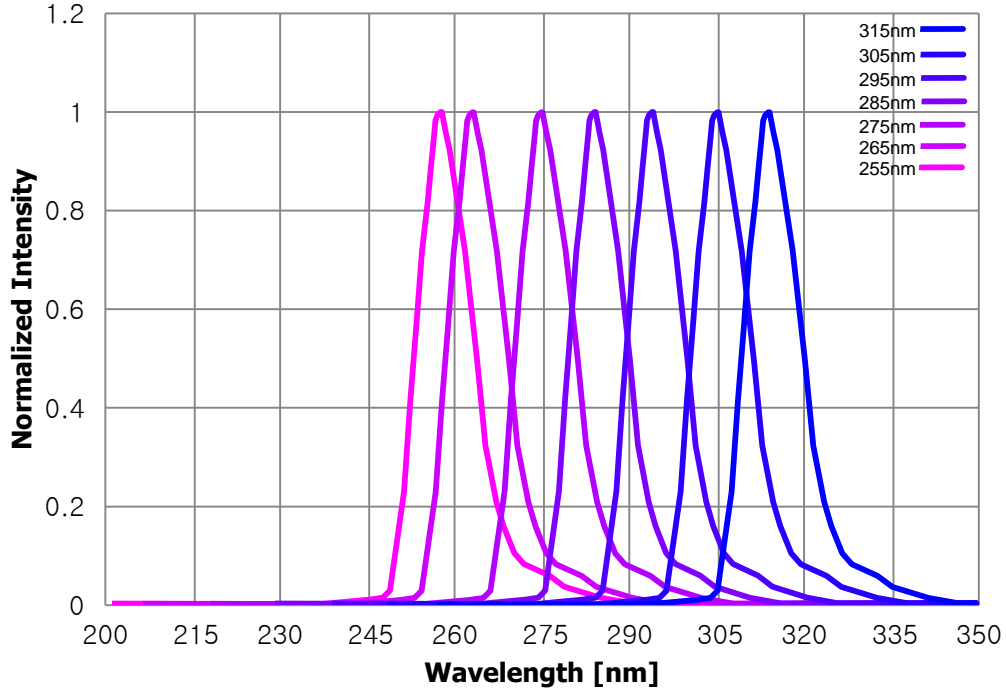
Notes :

1. Peak Wavelength Measurement tolerance : ±3nm
2. Radiant Flux Measurement tolerance : ± 10%
3. Φ_e is the Total Radiant Flux as measured with an integrated sphere.
4. Forward Voltage Measurement tolerance : ±3%



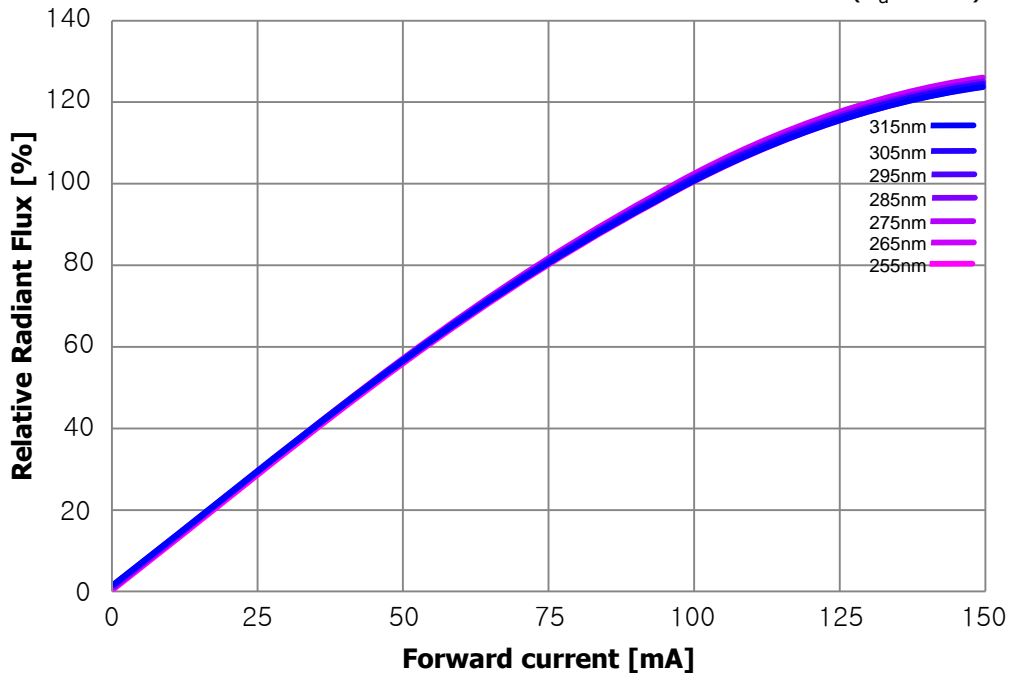
Spectral Power Distribution

($I_F=100\text{mA}$, $T_a=25^\circ\text{C}$, $\text{RH}=30\%$)



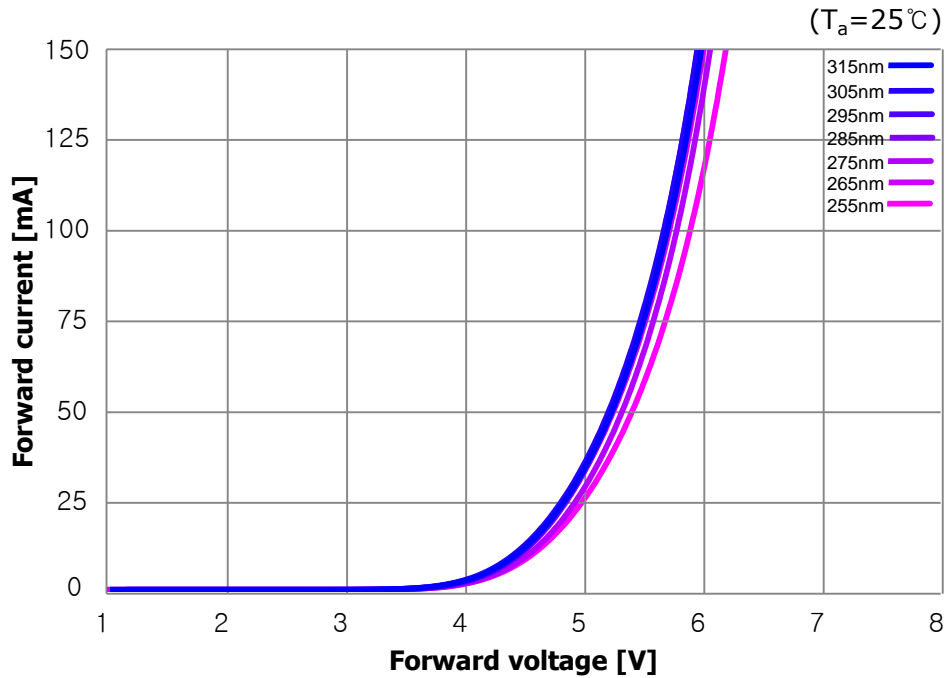
Relative Radiant Flux vs. Forward Current

($T_a=25^\circ\text{C}$)

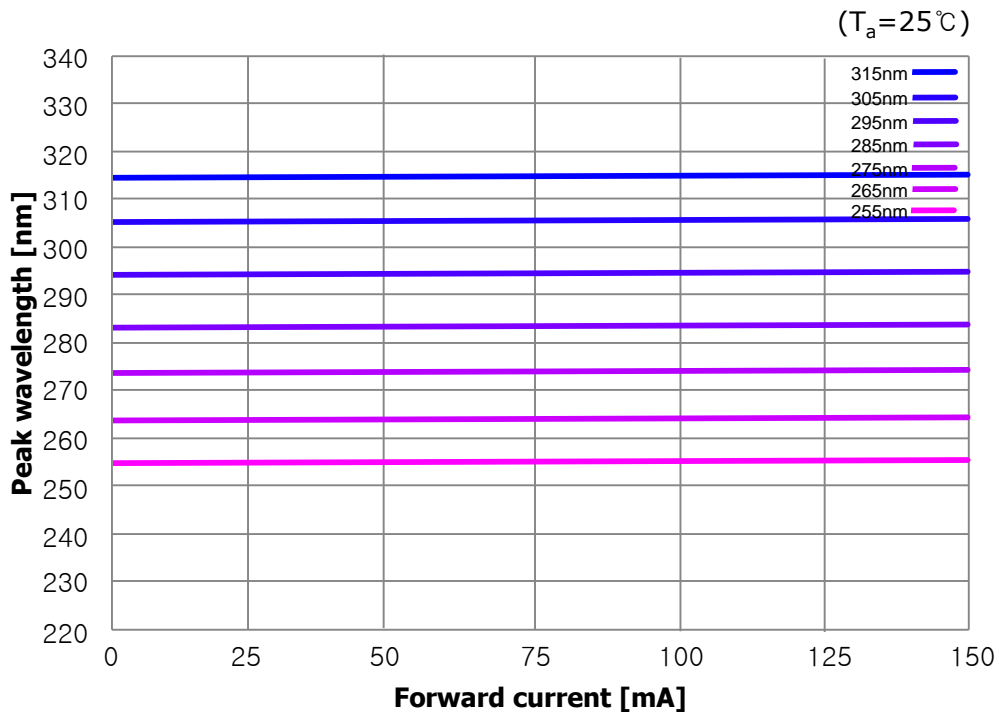




Forward current vs. Forward Voltage

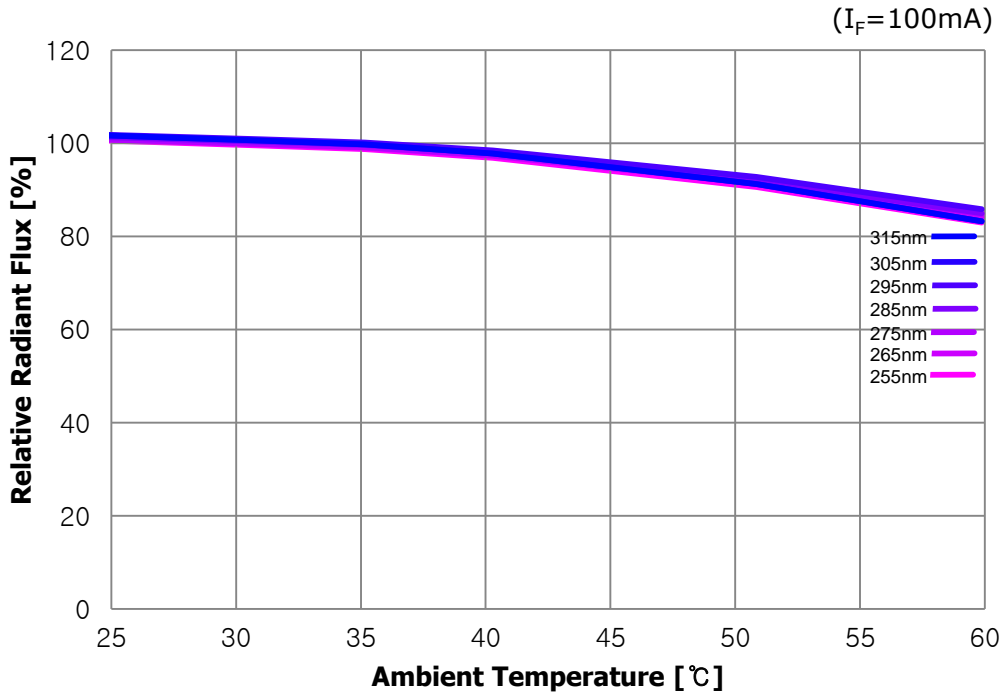


Peak Wavelength vs. Forward current

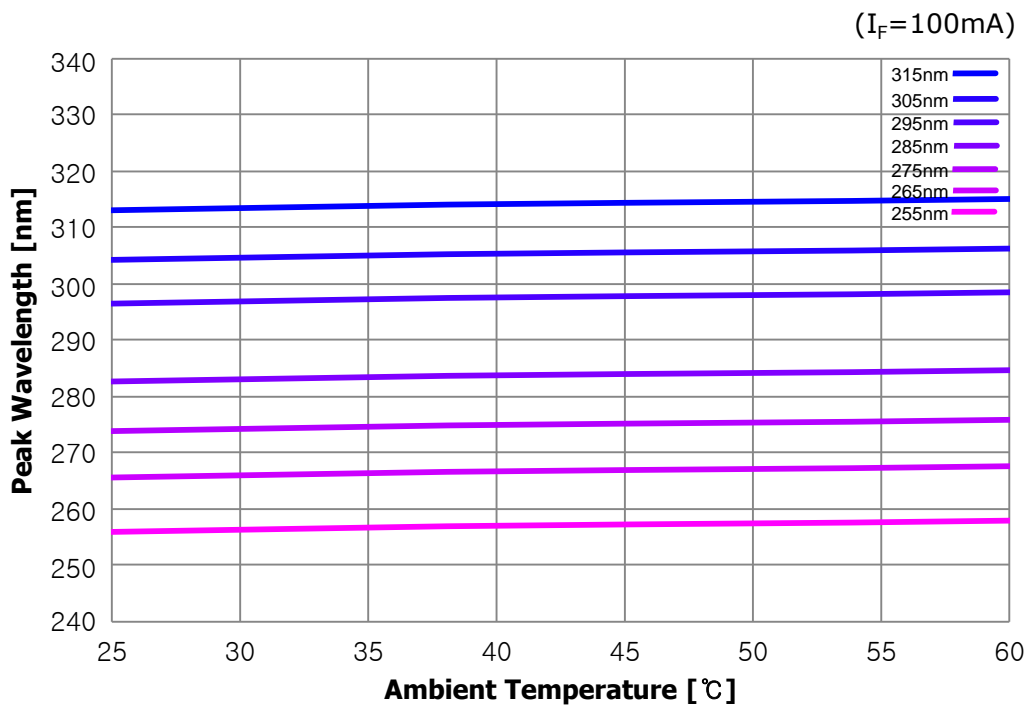




Relative Radiant Flux vs. Ambient Temperature

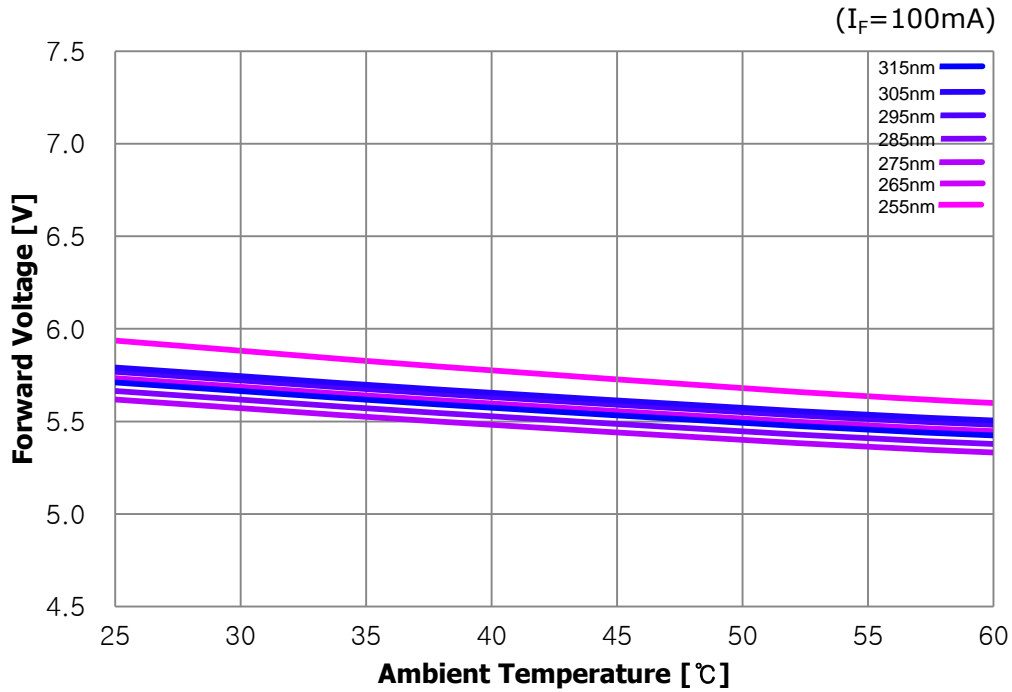


Peak Wavelength vs. Ambient Temperature

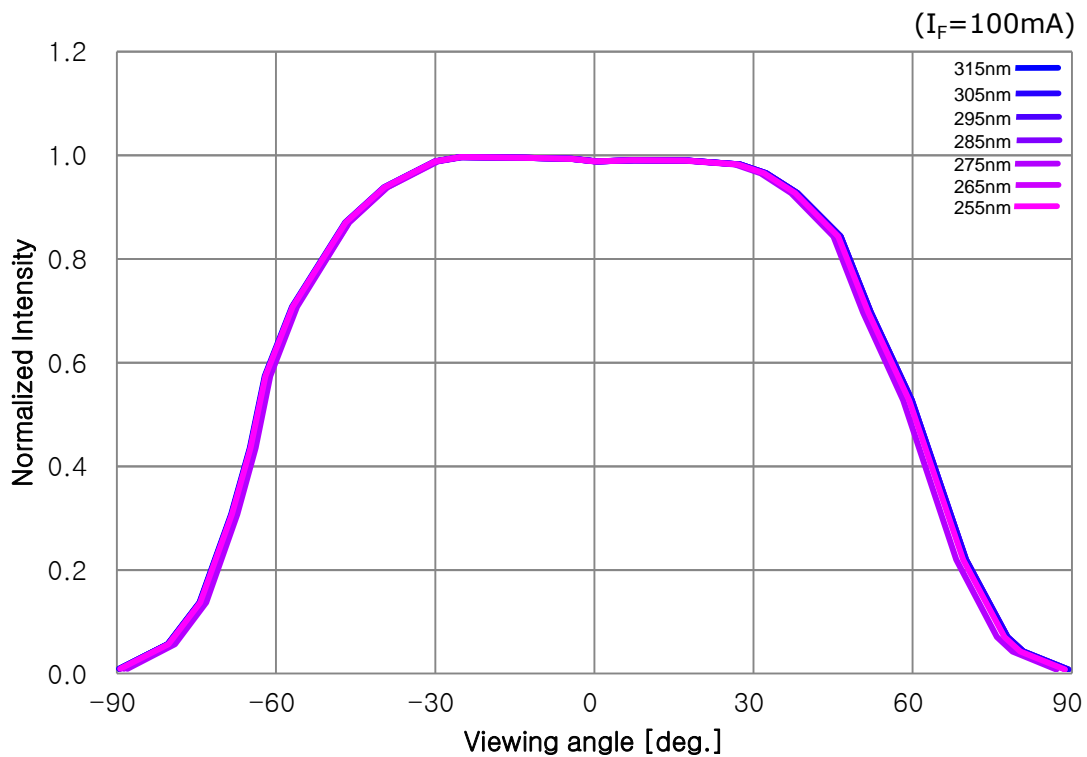


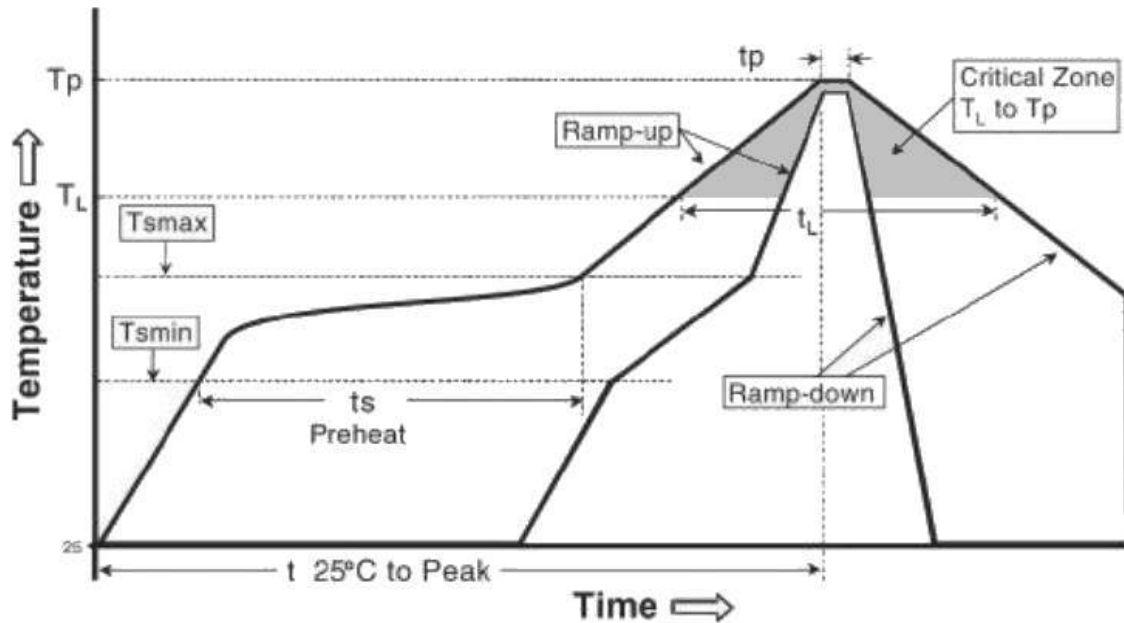


Forward Voltage vs. Ambient Temperature



Radiant Pattern





| Profile Feature | Sn-Pb Eutectic Assembly |
|--|------------------------------------|
| Average ramp-up rate (Ts_max to Tp) | 3 °C/second max. |
| Preheat - Temperature Min (Ts_min) - Temperature Max (Ts_max) - Time (Ts_min to Ts_max) (ts) | 100 °C 140 °C 60-120 seconds |
| Time maintained above: - Temperature (TL) - Time (tL) | 180 °C 20-50 seconds |
| Peak Temperature (Tp) | 214 °C |
| Time within 5°C of actual Peak Temperature (tp) | 10-30 seconds |
| Ramp-down Rate | 6 °C/second max. |
| Time 25°C to Peak Temperature | 6 minutes max. |

*** Caution**

1. Reflow soldering should not be done more than one time.
2. Repairs should not be done after the LEDs have been soldered. When repair is unavoidable, suitable tools must be used.
3. Die slug is to be soldered.
4. When soldering, do not put stress on the LEDs during heating.
5. After soldering, do not warp the circuit board.
6. Recommend to use a convection type reflow machine with 6 ~ 8 zones.