

Peak Emission Wavelength: 1650nm



### Description

- Size 1206: 3.2 (L) x 1.6 (W) x 1.2 (H) mm
- Circuit substrate: glass laminated epoxy
- Devices are RoHS conform
- Lead free solderable, soldering pads: gold plated
- Taped in 8 mm blister tape, cathode to transporting perforation
- All devices are sorted into radiant intensity classes
- High radiation intensity types

### Absolute Maximum Ratings (Ta=25°C)



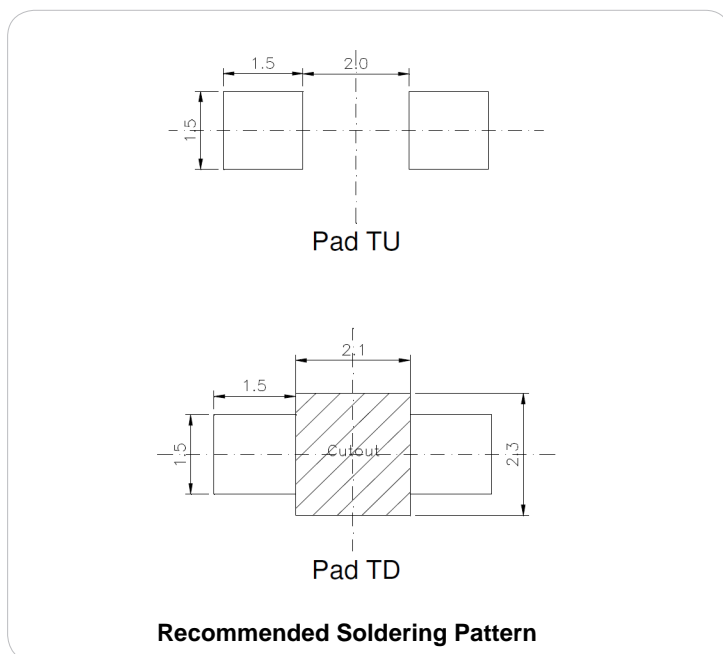
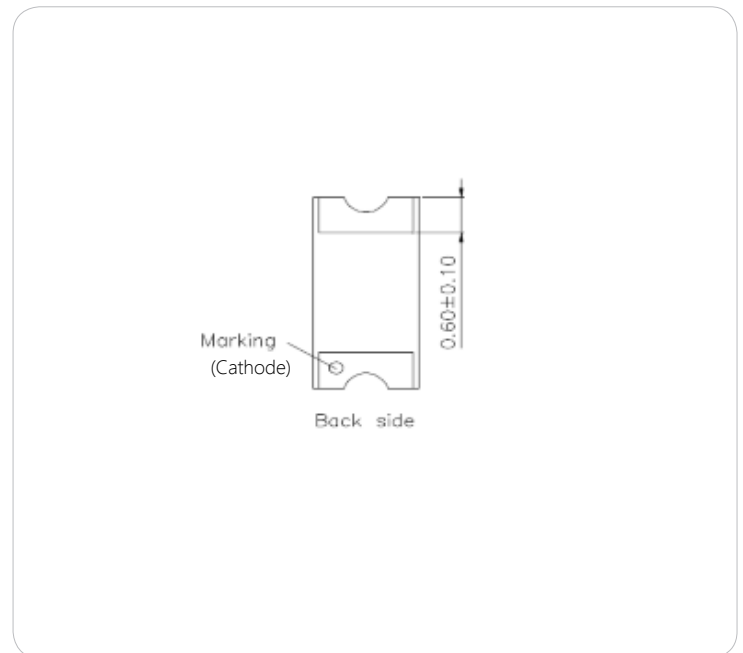
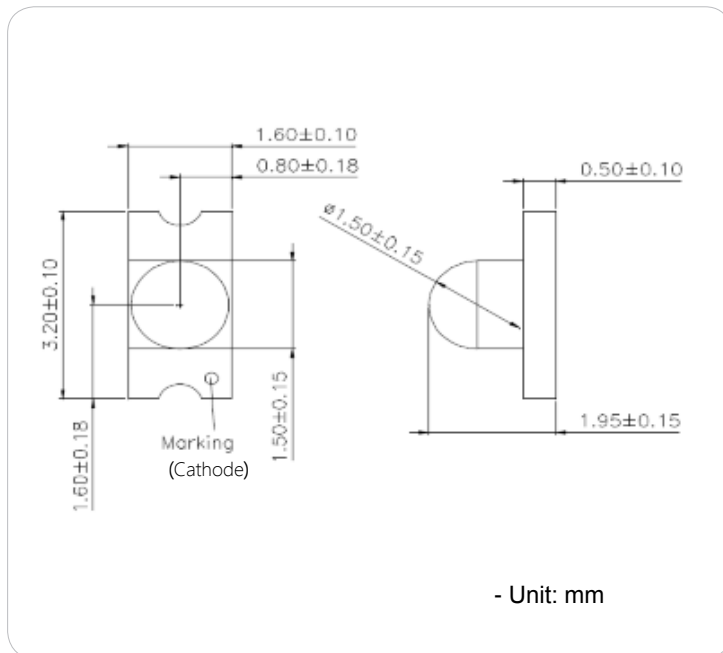
| ITEMS                  | SYMBOL | RATINGS    | UNIT |
|------------------------|--------|------------|------|
| Forward DC Current     | If     | 50         | mA   |
| Peak Forward Current * | Ifp    | 100        | mA   |
| Reverse Voltage        | Vr     | 5          | V    |
| Reverse Current        | Ir     | 100        | uA   |
| Operating Temperature  | Top    | -40 to +85 | °C   |
| Storage Temperature    | Tst    | -55 to +85 | °C   |
| Thermal Resistance     | RthJA  | 450        | K/W  |

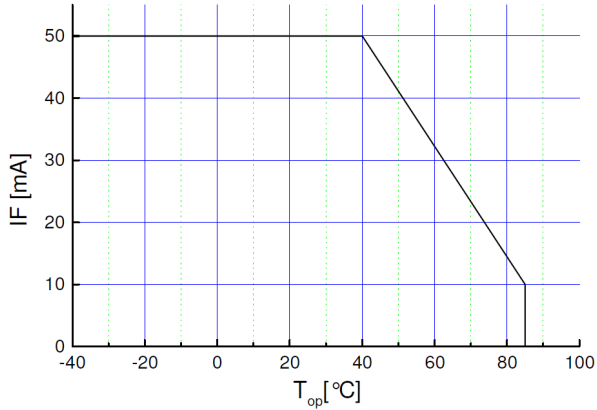
\* tp ≤ 100 us, T=1:10

### Electrical & Optical Characteristics (Ta = 25°C)

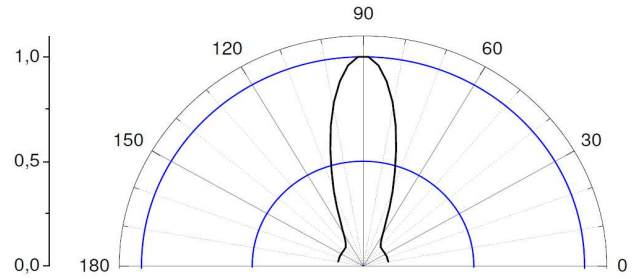
| ITEMS                   | SYMBOL | CONDITION | MIN  | TYP  | MAX  | UNIT |
|-------------------------|--------|-----------|------|------|------|------|
| Forward Current         | If     |           | --   | --   | 50   | mA   |
| Forward Voltage         | Vf     | If=50mA   | --   | 0.75 | 1.3  | V    |
| Peak Wavelength         | λp     | If=50mA   | 1600 | 1650 | 1700 | nm   |
| Power Output            | Po     | If=50mA   | --   | 3    | --   | mW   |
| Spectral Width          | Δλ0.5  | If=50mA   | --   | 130  | --   | nm   |
| Viewing Angle           | φ      | If=50mA   | --   | 50   | --   | deg  |
| Temperature Coefficient | TCΦe   | If=20mA   | --   | -0.4 | --   | %/K  |
| Temperature Coefficient | TCλp   | If=20mA   | --   | +0.5 | --   | nm/K |

Package Dimensions

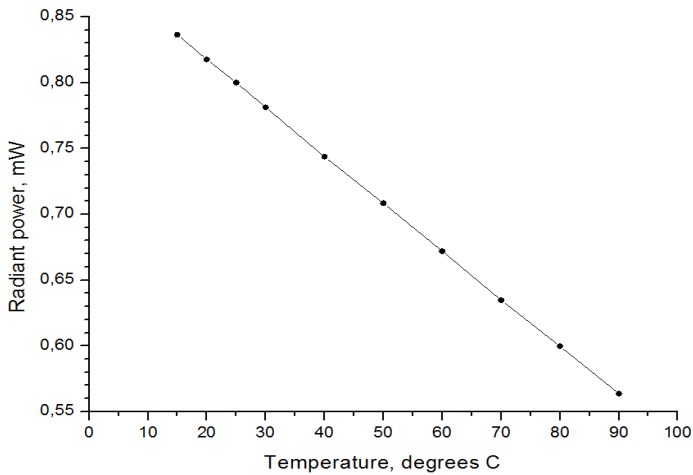




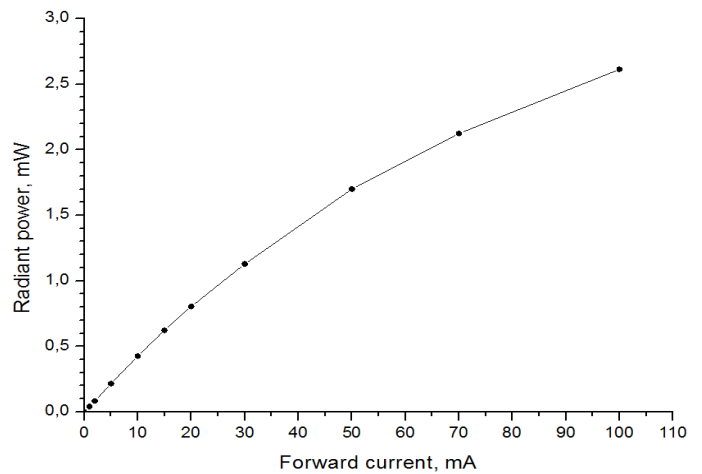
**Maximal forward current (DC) characteristic**



**View angle**

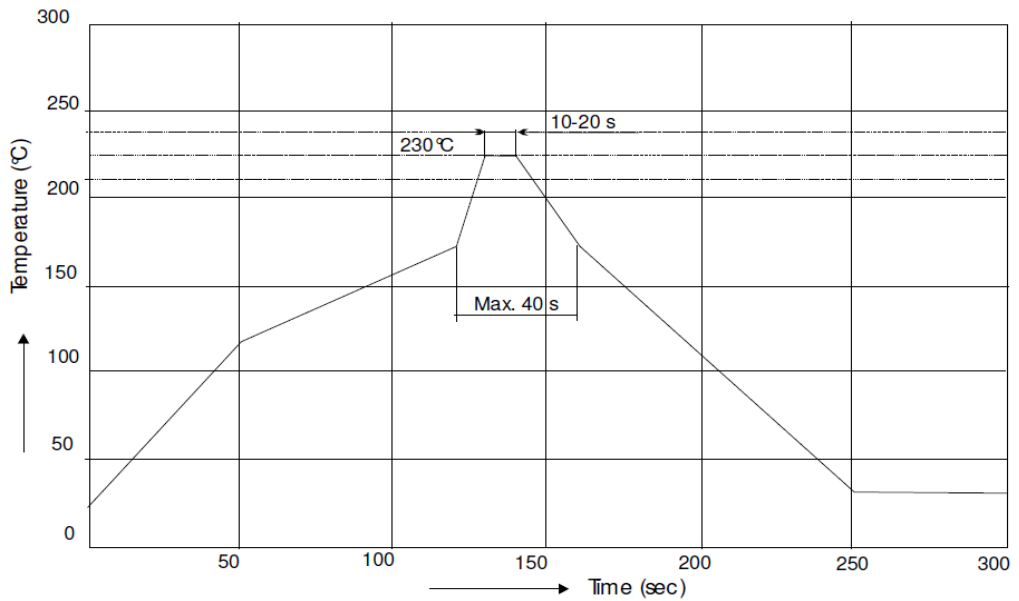


**Radiant power vs. temperature @ 20 mA**

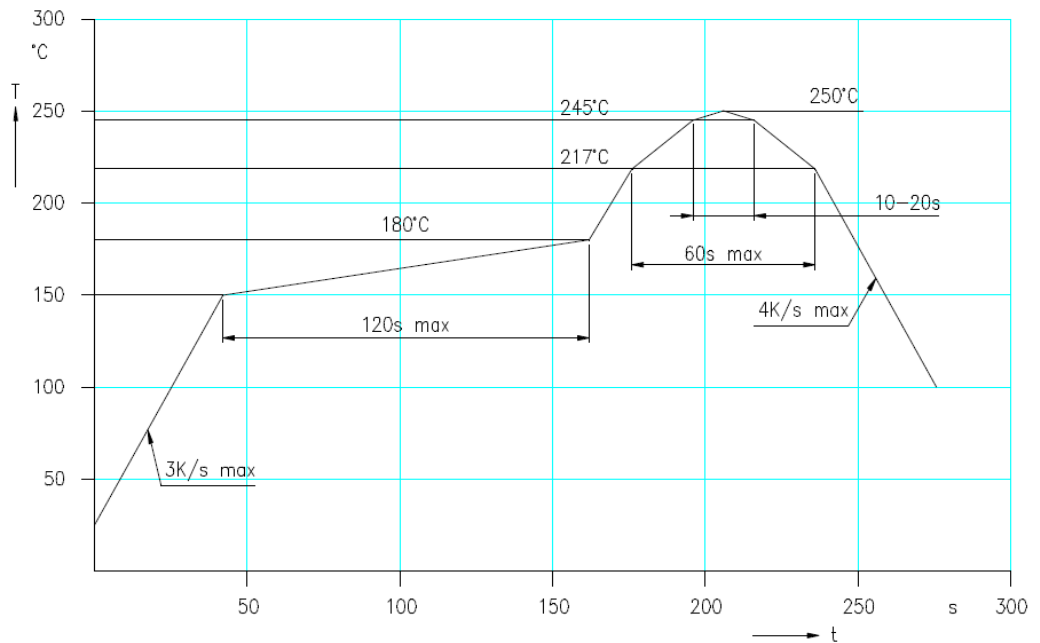


**Radiant power vs. forward current**

**IR reflow soldering profile**



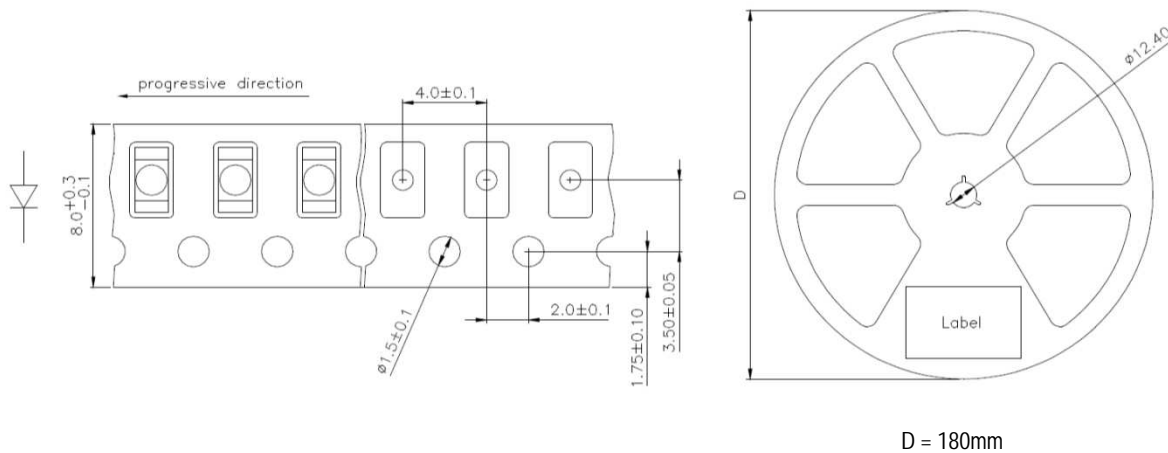
**IR reflow soldering profile for lead free soldering**



**Manual soldering:**  
max power of iron 25 W / 3 s / 300°C

Measured according to CIE 127. All SMD-LEDs are 100% measured and selected on full automated equipment with an accuracy of  $\pm 11\%$ .

**Tape and Reel packing**



| Tape and Reel - Suffice to the part number |                              |
|--|------------------------------|
| Ex:  | MTXXXXX-T05 = 500 piece reel |
| Code                                       | Components per reel          |
| T05  | 500                          |
| T1   | 1000                         |
| T2   | 2000                         |
| T25  | 2500                         |
| T3   | 3000                         |

**Packing:** The reel is seaLED in special plastic bag with integrate ESD protection (MIL - STD 81705) including a silica dry-pack