

SMC1550 High Performance infrared SMD LED on ceramics

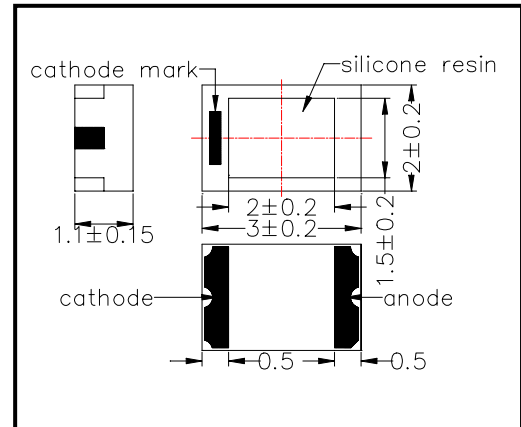
SMC1550 consists of an InGaAsP LED mounted on the ceramics package and is sealed with silicone.

It emits a spectral band of radiation at 1550nm.

◆ Outer dimension (Unit:mm)

◆ Specifications

- | | |
|---------------------|-----------------------|
| 1) Product Name | SMD type infrared LED |
| 2) Type No. | SMC1550 |
| 3) Chip | |
| (1) Chip Material | InGaAsP |
| (2) Peak Wavelength | 1550nm typ. |
| 4) Package | |
| (1) Package | Ceramics |
| (2) Lens | Silicone resin |



◆ Absolute Maximum Rating

| Item | Symbol | Maximum Rated Value | Unit | Ambient Temperature |
|-----------------------|------------------|---------------------|------|----------------------|
| Power Dissipation | P _D | 120 | mW | T _a =25°C |
| Forward Current | I _F | 100 | mA | T _a =25°C |
| Pulse Forward Current | I _{FP} | 1 | A | T _a =25°C |
| Reverse Voltage | V _R | 5 | V | T _a =25°C |
| Operating Temperature | T _{OPR} | -20 ~ +85 | °C | |
| Storage Temperature | T _{STG} | -30 ~ +100 | °C | |
| Soldering Temperature | T _{SOL} | 240 | °C | |

‡Pulse Forward Current condition: Duty=1% and Pulse Width=1us.

‡Soldering condition: Soldering condition must be completed within 3 seconds at 230°C

◆ Electro-Optical Characteristics

| Item | Symbol | Condition | Minimum | Typical | Maximum | Unit |
|----------------------|------------------|----------------------|---------|---------|---------|------|
| Forward Voltage | V _F | I _F =50mA | | 1.2 | 1.5 | V |
| Reverse Current | I _R | V _R =5V | | | 10 | uA |
| Total Radiated Power | P _O | I _F =50mA | | 1.0 | | mW |
| Peak Wavelength | λ _P | I _F =50mA | 1500 | 1550 | 1600 | nm |
| Half Width | Δλ | I _F =50mA | | 100 | | nm |
| Viewing Half Angle | θ _{1/2} | I _F =50mA | | ±55 | | deg. |
| Rise Time | t _r | I _F =50mA | | 10 | | ns |
| Fall Time | t _f | I _F =50mA | | 10 | | ns |

‡Total Radiated Power is measured by Ando AQ2140/2742