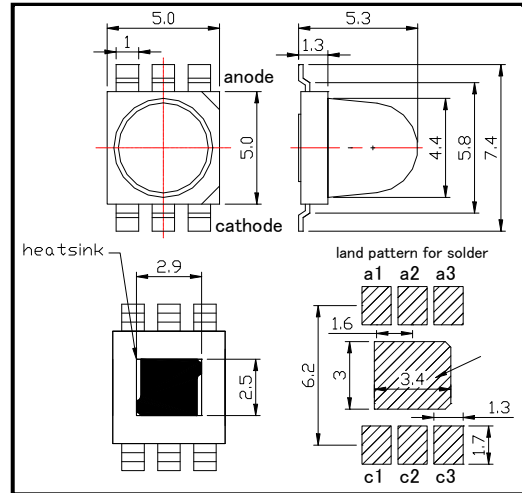


SMB470-1100-03-I High Power type Top LED with Lens

SMB470-1100-03 is an InGaN LED mounted on copper heat sink with a 5x5 mm package and molded with super beam lens. On forward bias, it emits a band of visible light which peaks 470nm. It is 16000mcd typical of brightness and $\pm 10^\circ$ of viewing half angle.

◆ Outer dimension (Unit: mm)



◆ Specifications

- 1) Product Name Super Flux mold type LED
- 2) Type No. SMB470-1100-03
- 3) Chip
 - (1) Chip Material InGaAs
 - (2) Chip Dimension 1000um*1000um
 - (3) Peak Wavelength 470nm typ.
- 4) Package
 - (1) Type Super Beam type LED
 - (2) Resin Material Epoxy Resin
 - (3) Lead Frame Silver Plated Copper

◆ Absolute Maximum Ratings

| Item | Symbol | Maximum Rated Value | Unit | Ambient Temperature |
|-----------------------|------------------|---------------------|------|----------------------|
| Power Dissipation | P _D | 1000 | mW | T _a =25°C |
| Forward Current | I _F | 350 | mA | T _a =25°C |
| Pulse Forward Current | I _{FP} | 700 | mA | T _a =25°C |
| Reverse Voltage | V _R | 10 | V | T _a =25°C |
| Operating Temperature | T _{OPR} | -30 ~ +85 | °C | |
| Storage Temperature | T _{STG} | -30 ~ +100 | °C | |
| Soldering Temperature | T _{SOL} | 265 | °C | |

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Soldering condition: Soldering condition must be completed within 3 seconds at 265°C

◆ Electro-Optical Characteristics [T_a=25°C]

| Item | Symbol | Condition | Minimum | Typical | Maximum | Unit |
|------------------------|------------------|------------------------|---------|---------|---------|------|
| Forward Voltage | V _F | I _F =200mA | | 3.4 | 4.0 | V |
| Pulsed Forward Voltage | V _F | I _{FP} =0.5 A | | 3.8 | 4.5 | V |
| Reverse Current | I _R | V _R =10V | | | 10 | uA |
| Total Radiated Power | P _O | I _F =200mA | | 80 | | mW |
| Brightness | I _e | I _F =200mA | | 16000 | | mcd |
| Peak Wavelength | λ _P | I _F =50mA | | 470 | | nm |
| Half Width | Δλ | I _F =50mA | | 17 | | nm |
| Viewing Half Angle | θ _{1/2} | I _F =50mA | | ±10 | | deg. |
| Rise Time | t _r | I _F =50mA | | 200 | | ns |
| Fall Time | t _f | I _F =50mA | | 150 | | ns |

‡Total Radiated Power is measured by Photodyne #500

‡Brightness is measured by Tektronix J-6512.