

Lead (Pb) Free Product RoHS compliant

SMTW47

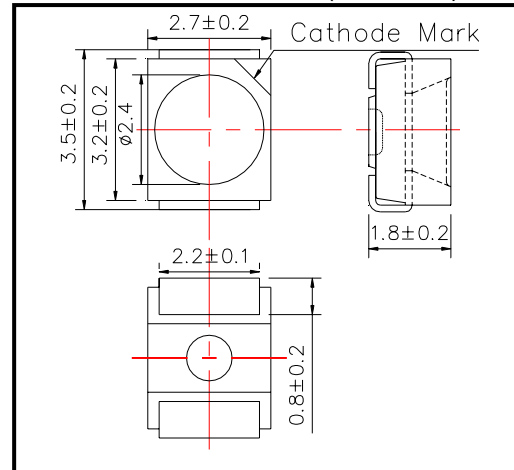
High Performance White color TOP LED

SMTW47 consists of an InGaN LED mounted with YAG on the lead frame as TOP LED package and emits white color radiation. and is 700mcd typical of Brightness.

◆ Specifications

- 1) Product Name TOP LED
 - 2) Type No. SMTW47
 - 3) Chip
 - (1) Chip Material InGaN
 - (2) Peak Wavelength White color (*1) typ.
 - 4) Package
 - (1) Lead Frame Die Silver Plated
 - (2) Package Resin PPA Resin
 - (3) Lens Epoxy Resin
- (*1): x: 2.3±0.3E-01, y: 2.2±0.3E-01

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings

| Item | Symbol | Maximum Rated Value | Unit | Ambient Temperature |
|-----------------------|------------------|---------------------|------|----------------------|
| Power Dissipation | P _D | 120 | mW | T _a =25°C |
| Forward Current | I _F | 30 | mA | T _a =25°C |
| Reverse Voltage | V _R | 5 | V | T _a =25°C |
| Operating Temperature | T _{OPR} | -20 ~ +80 | °C | |
| Storage Temperature | T _{STG} | -30 ~ +80 | °C | |
| Soldering Temperature | T _{SOL} | 240 | °C | |

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

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

| Item | Symbol | Condition | Minimum | Typical | Maximum | Unit |
|----------------------|------------------|----------------------|---------|---------|---------|------|
| Forward Voltage | V _F | I _F =20mA | | 3.80 | 4.30 | V |
| Reverse Current | I _R | V _R =5V | | | 10 | μA |
| Total Radiated Power | P _O | I _F =20mA | | 4.0 | | mW |
| Brightness | I _v | I _F =20mA | 400 | 700 | | mcd |
| Peak Wavelength | λ _P | I _F =20mA | | *1 | | nm |
| Half Width | Δλ | I _F =20mA | | - | | nm |
| Viewing Half Angle | θ _{1/2} | I _F =20mA | | ±55 | | deg. |

‡ *1; x: 2.3±0.3E-01, y: 2.2±0.3E-01

‡ Total Radiated Power is measured by Photodyne #500

‡ Brightness is measured by Tektronix J-16.