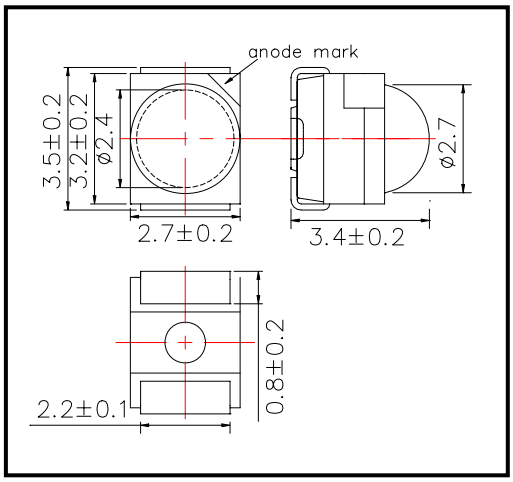
Marubeni

# SMT670-24 High Performance Red Color TOP IR LED with Lens

SMT670-24 consists of an AlGaAs LED mounted on the lead frame as TOP LED package with plastic ball lens and is 6mW of total radiated power and 15mW/sr of radiant Intensity. It emits a spectral band of radiation at 670nm.

♦Outer dimension (Unit: mm)




♦Specifications

| | |
|---|---|
| 1) Product Name | TOP LED |
| 2) Type No. | SMT670-24 |
| 3) Chip | |
| (1) Chip Material | AlGaAs |
| (2) Peak Wavelength | 670nm typ. |
| 4) Package | |
| (1) Lead Frame Die | Silver Plated |
| (2) Package Resin | PPA Resin |
| (3) Lens | Plastics Lens Φ2.7 |

♦Absolute Maximum Rating

| Item | Symbol | Maximum Rated Value | Unit | Ambient Temperature |
|---|---|---|---|---|
| Power Dissipation | $P_D$ | 100 | mW | Ta=25°C |
| Forward Current | $I_F$ | 50 | mA | Ta=25°C |
| Reverse Voltage | $V_R$ | 5 | V | Ta=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 [Ta=25°C]

| Item | Symbol | Condition | Minimum | Typical | Maximum | Unit |
|---|---|---|---|---|---|---|
| Forward Voltage | $V_F$ | $I_F$=20mA | | 1.80 | 2.30 | V |
| Reverse Current | $I_R$ | $V_R$=5V | | | 10 | uA |
| Total Radiated Power | $P_O$ | $I_F$=20mA | | 6 | | mW |
| Radiant Intensity | $I_E$ | $I_F$=50mA | | 15 | | mW/sr |
| Peak Wavelength | $\lambda_P$ | $I_F$=20mA | 660 | 670 | 680 | nm |
| Half Width | $\Delta\lambda$ | $I_F$=20mA | | 20 | | nm |
| Viewing Half Angle | $\theta_{1/2}$ | $I_F$=20mA | | ±15 | | deg. |

‡Total Radiated Power is measured by Photodyne #500
‡Radiant Intensity is measured by Tektronix J-6512

**Marubeni America Corporation**
**3945 Freedom Circle, Suite 1000, Santa Clara, CA 95054**
**408-330-0650 (Ext. 323), 408-330-0655 (Fax), sales@tech-led.com**