

SMT660-23 High Performance Red color TOP LED with lens

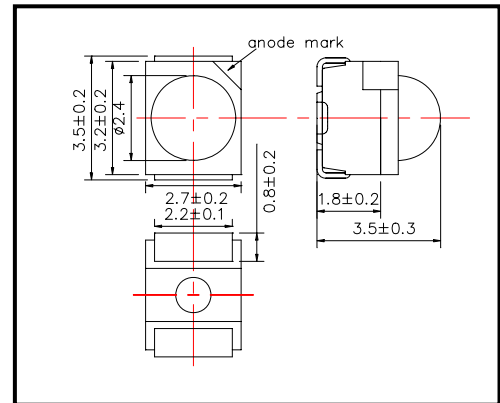
SMT660-23 consists of an AlGaAs LED mounted on the lead frame as TOP LED package

and is 500mcd typical of Brightness through lens.

Die is encapsulated by silicone and covered by heat proof lens.

It emits a spectral band of radiation at 650nm.

◆ Outer dimension (Unit: mm)



◆ Specifications

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|---------------------|--------------------------|
| 1) Product Name | TOP LED |
| 2) Type No. | SMT660-23 |
| 3) Chip | |
| (1) Chip Material | AlGaAs |
| (2) Peak Wavelength | 650nm typ. |
| 4) Package | |
| (1) Lead Frame Die | Silver Plated |
| (2) Package Resin | PPA Resin |
| (3) Lens | Plastics Lens Φ 2.7 |

◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	120	mW	$T_a=25^\circ\text{C}$
Forward Current	I_F	50	mA	$T_a=25^\circ\text{C}$
Reverse Voltage	V_R	5	V	$T_a=25^\circ\text{C}$
Operating Temperature	T_{OPR}	-20 ~ +80	$^\circ\text{C}$	
Storage Temperature	T_{STG}	-30 ~ +80	$^\circ\text{C}$	
Soldering Temperature	T_{SOL}	240	$^\circ\text{C}$	

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

◆ Electro-Optical Characteristics [$T_a=25^\circ\text{C}$]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	$I_F=20\text{mA}$		1.90	2.30	V
Reverse Current	I_R	$V_R=5\text{V}$			10	μA
Total Radiated Power	P_O	$I_F=20\text{mA}$	2.2	3.3		mW
Brightness	I_v	$I_F=20\text{mA}$	200	500		mcd
Peak Wavelength	λ_P	$I_F=20\text{mA}$	640	650	660	nm
Half Width	$\Delta\lambda$	$I_F=20\text{mA}$		20		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=20\text{mA}$		± 15		deg.

‡Total Radiated Power is measured by Photodyne #500

‡Brightness is measured by Tektronix J-16.