

## SMT1550-23

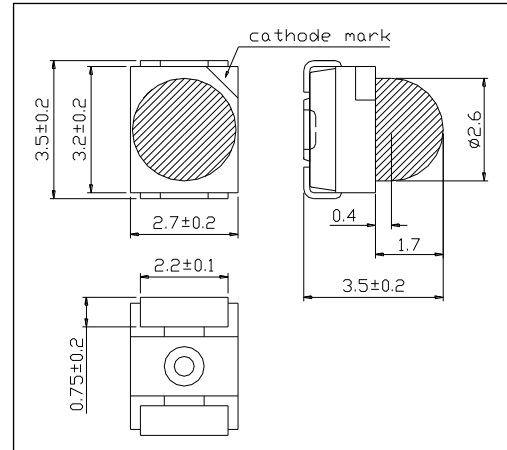
### High Performance NIR Top LED with Lens

SMT1550-23 consists of an InGaAsP LED mounted on the lead frame as Top LED package and is sealed with epoxy resin. It emits a spectral band of radiation at 1550nm.

<Specifications>

1. Product Name: Top NIR LED with Lens
2. Type Number: SMT1550-23
3. Chip:
  - Material: InGaAsP
  - Peak Wavelength: 1550nm typ.
4. Package
  - Lead Frame Die: Silver Plated
  - Resin Material: PPA Resin
  - Lens: Epoxy Resin
  - Diameter:  $\Phi 2.6\text{mm}$

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	70	mW
Forward Current	IF	50	mA
Pulse Forward Current*	IFP	500	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthjp	250	K/W
Junction Temperature	Tj	100	°C
Operating Temperature	TOPR	-20 ~ +85	°C
Storage Temperature	TSTG	-30 ~ +100	°C
Soldering Temperature**	TSOL	250	°C

\* Duty=1% and Pulse Width=10 $\mu$ s

\*\* Soldering condition must be completed within 5 second at 250 °C.

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.1	1.4	V
Radiated Power*	PO	IF=50mA		2.5		mW
Peak Wavelength	$\lambda P$	IF=50mA	1500	1550	1600	nm
Half Width	$\Delta\lambda$	IF=50mA		115		nm
Centroid Wavelength	$\lambda C$	IF=50mA		1530		
Viewing Half Angle	$\theta 1/2$	IF=50mA		$\pm 20$		deg

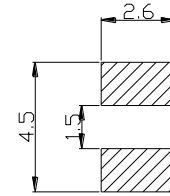
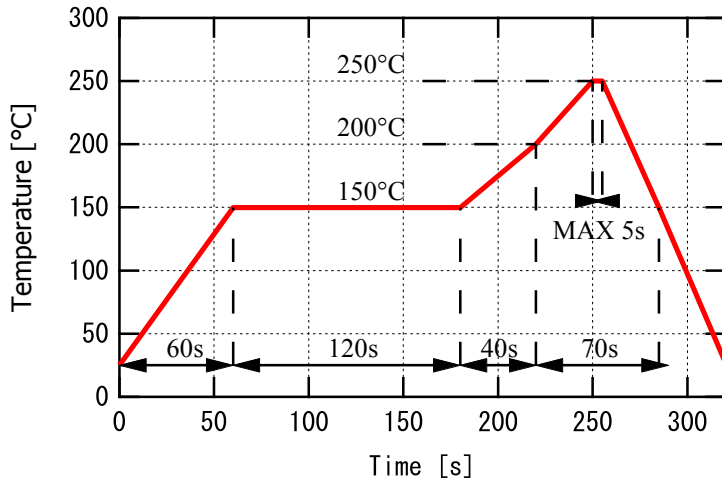
\* Measured by G8370-85



**SMD Application**

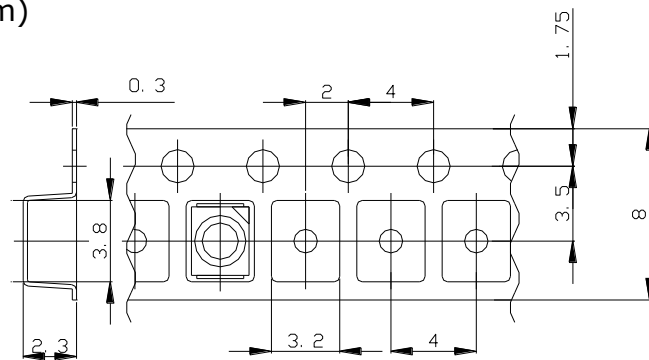
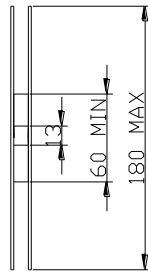
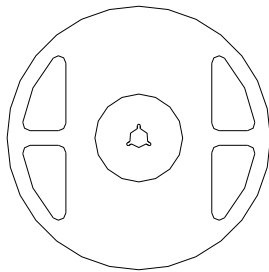
IR-Reflow Soldering Profile for lead free soldering

Recommended Land Layout  
(Unit:mm)



**SMD Packing**

Tape and Reel Dimensions(Unit:mm)



Feeding Direction -->

**Wrapping**

Moisture barrier bag aluminum laminated film with a desiccant to keep out the moisture absorption during the transportation and storage.