SMT1300-23

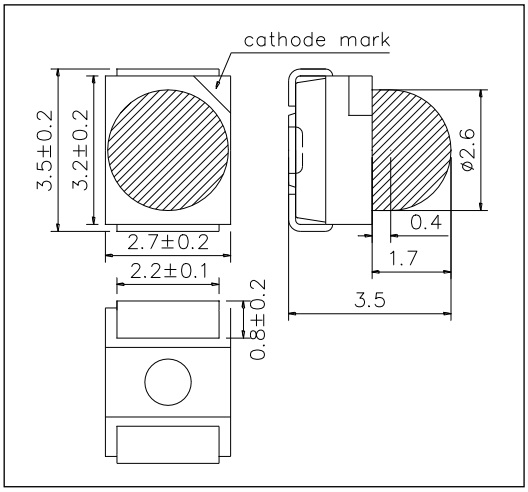
High Performance NIR Top LED with Lens

SMT1300-23 consists of an InGaAsP LED mounted on the lead frame as Top LED package with plastic ball lens and is 2mW typical of output power and 3mW/sr of radiant intensity. It emits a spectral band of radiation at 1300nm.

<Specifications>

1. Product Name: Top NIR LED with Lens
2. Type Number: SMT1300-23
3. Chip:
   - Material: InGaAsP
   - Peak Wavelength: 1300nm typ.
4. Package
   - Lead Frame Die: Siliver Plated
   - Resin Material: PPA Resin
   - Lens: Epoxy Resin
   - Diameter: Φ2.6mm

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25℃]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	120	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	500	mA
Reverse Voltage	VR	5	V
Operating Temperature	TOPR	-20 ~ +85	℃
Storage Temperature	TSTG	-30 ~ +100	℃
Soldering Temperature**	TSOL	255	℃

* Duty=1% and Pulse Width=1μs
** Soldering condition must be completed within 10 second at 255℃.

Electro-Optical Characteristics [Ta=25℃]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.0	1.5	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA	0.6	2.0		mW
Radiant Intensity	IE	IF=50mA		3.0		mW/sr
Peak Wavelength	λP	IF=50mA	1250	1300	1350	nm
Half Width	Δλ	IF=50mA		100		nm
Viewing Half Angle	θ1/2	IF=50mA		±15		deg
Rise Time	Tr	IF=50mA		10		Ns
Fall Time	tf	IF=50mA		10		ns

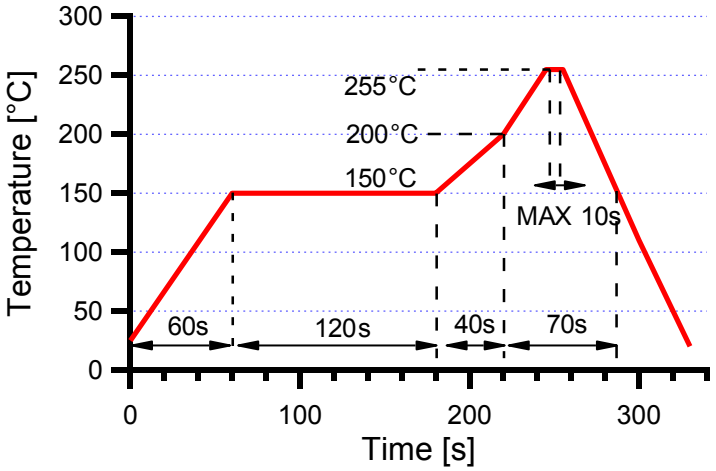
* Measured by Ando AQ2140/2742

RoHS Compliant

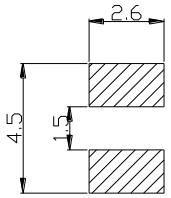
Marubeni America Corporation | 3945 Freedom Circle, Suite 1000, Santa Clara, CA95054
Tel: 408-330-0650 | Fax: 408-330-0655 | Email: sales@tech-led.com

SMD Application

IR-Reflow Soldering Profile for lead free soldering



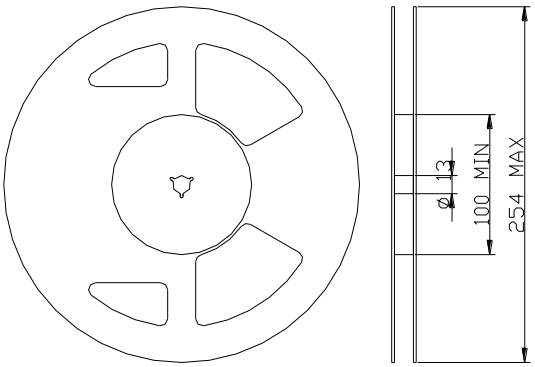
Recommended Land Layout (Unit:mm)

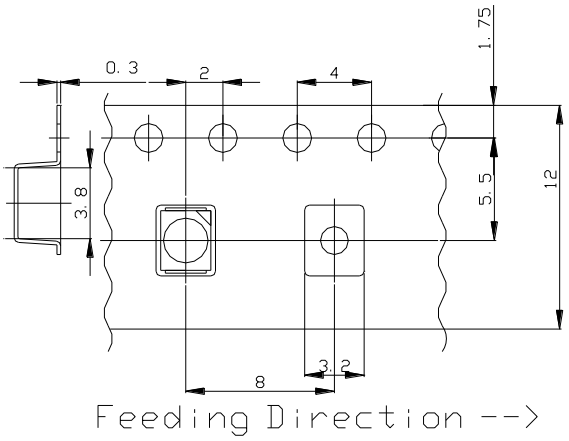


Don’t put stress on SMD and a circuit board after soldering.

SMD Packing

Tape and Reel Dimensions(Unit:mm)





Wrapping

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