SMT1030-23

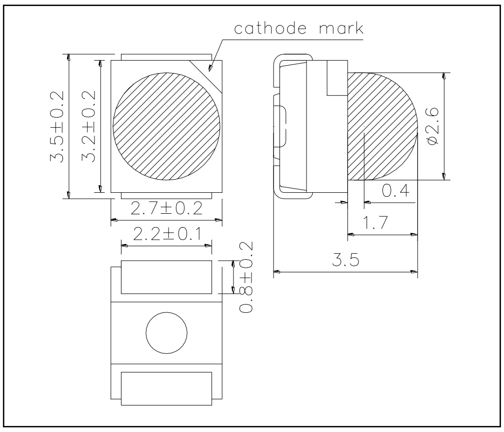
High Performance NIR LED

SMT1030-23 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 1030nm.

<Specifications>

1. Product Name: Top NIR LED
2. Type Number: SMT1030-23
3. Chip:
   - Material: InGaAsP
   - Peak Wavelength: 1030nm typ.
4. Package
   - Lead Frame Die: Siliver Plated
   - Resin Material: PPA Resin
   - Lens: Epoxy Resin

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25℃]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	70	mW
Forward Current	IF	50	mA
Pulse Forward Current*	IFP	200	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthjp	250	K/W
Junction Temperature	Tj	100	℃
Operating Temperature	TOPR	-40 ~ +85	℃
Storage Temperature	TSTG	-40 ~ +100	℃
Soldering Temperature**	TSOL	250	℃

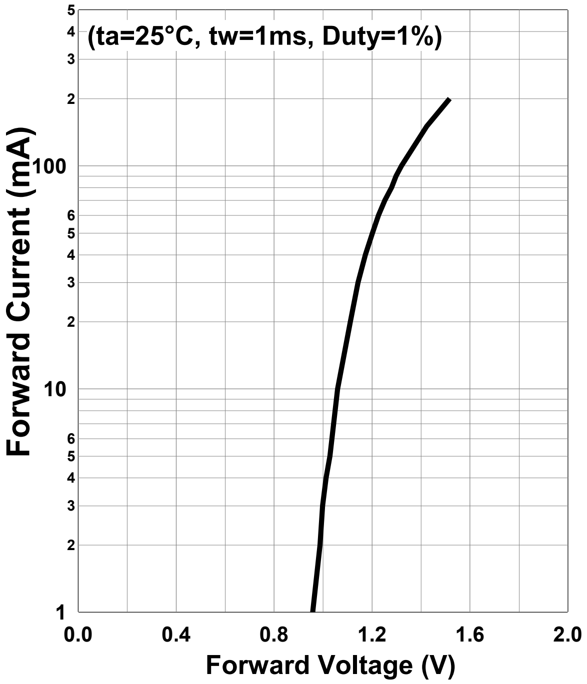
* Duty=1% and Pulse Width=10μs
** Soldering condition must be completed within 5 second at 250 ℃.

Electro-Optical Characteristics [Ta=25℃]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.18		V
	VFP	IFP=200mA		1.55		
Radiated Power*	PO	IF=50mA		5.5		mW
		IFP=200mA		22		
Radiant Intensity**	IE	IF=50mA		10		mW/sr
		IFP=200mA		40		
Peak Wavelength	λP	IF=50mA	1000	1030	1060	nm
Half Width	Δλ	IF=50mA		50		nm
Viewing Half Angle	θ1/2	IF=50mA		±12.5		deg

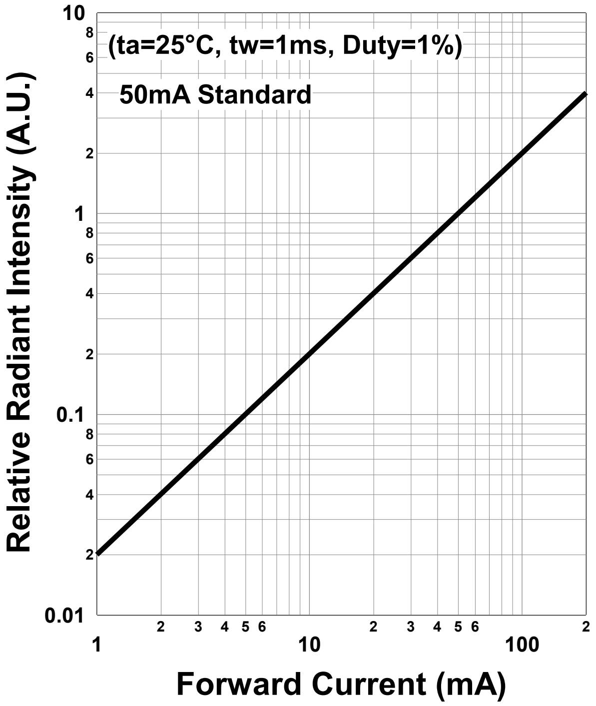
* Measured by G8370-85
** Measured by Ando Optical Multi Meter AQ2140&AQ2742

RoHS Compliant

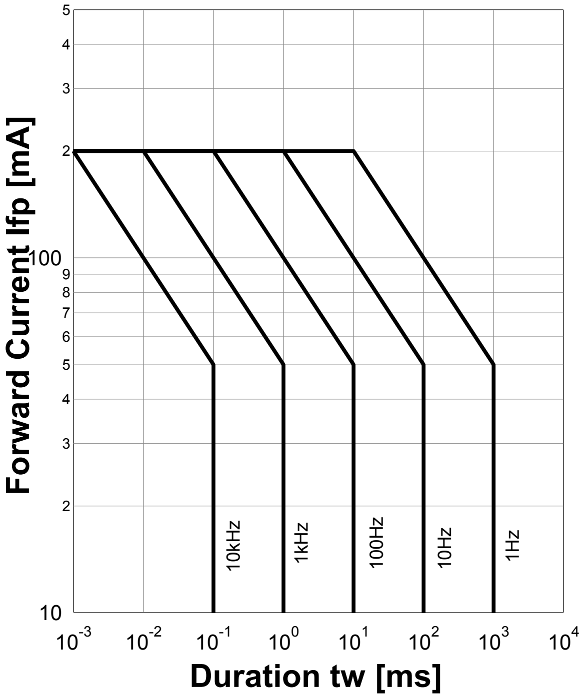
Forward Curent - Forward Voltage



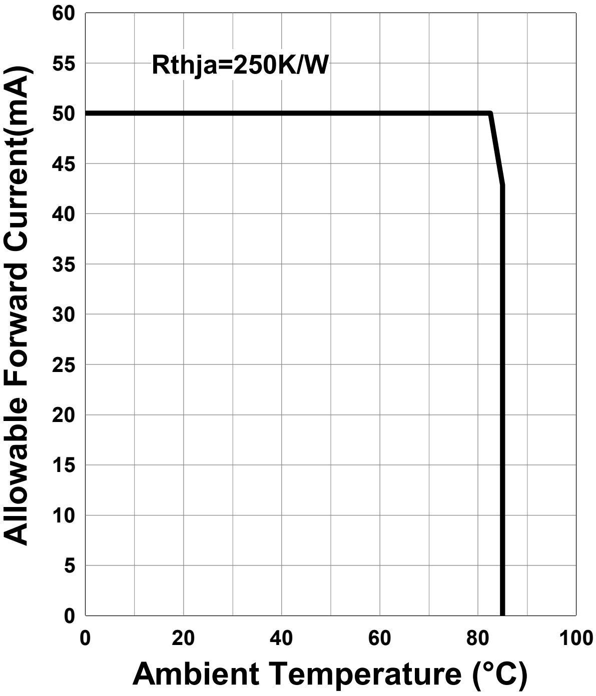
Relative Radiant Intensity - Forward Current

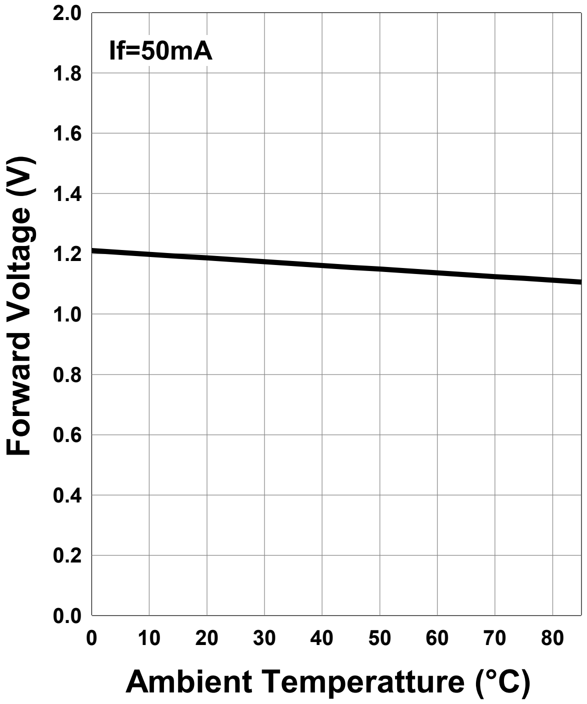


Forward Current - Pulse Duration

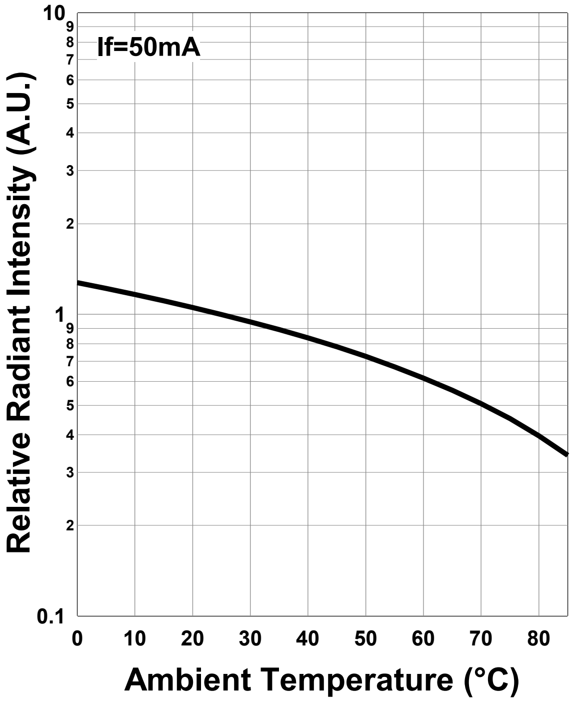


Allowable Forward Current - Ambient Temperature

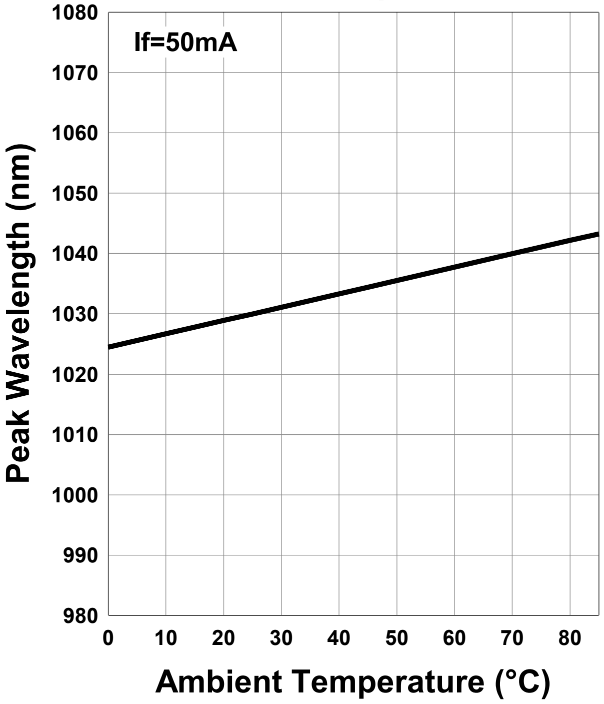




Forward Voltage -
Ambient Temperture

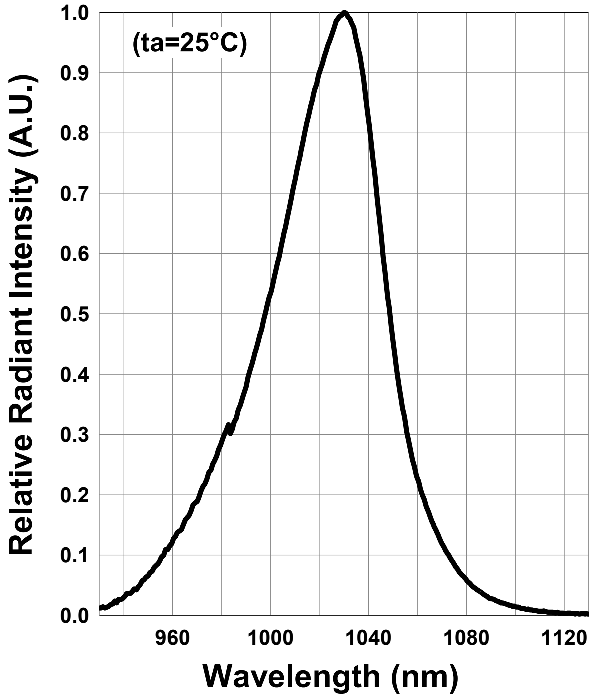


Relative Radiant Intensity -
Ambient Temperature

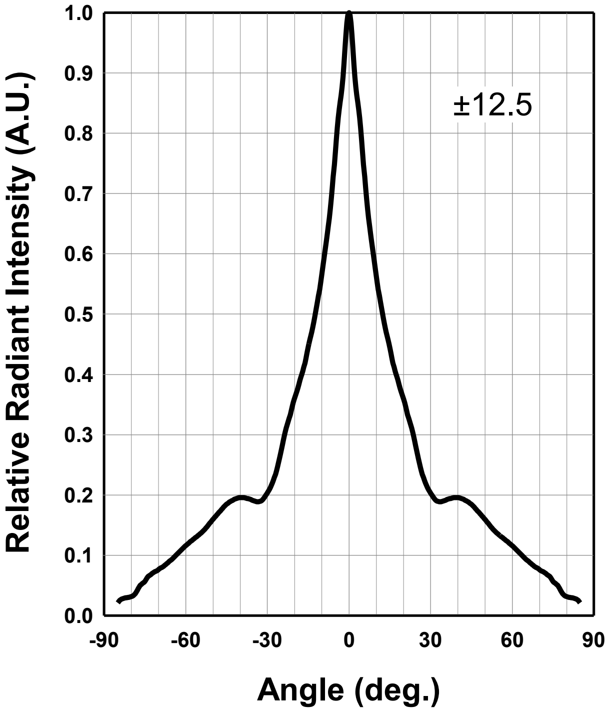


Peak Wavelength -
Ambient Temperature

Relative Spectral Emission

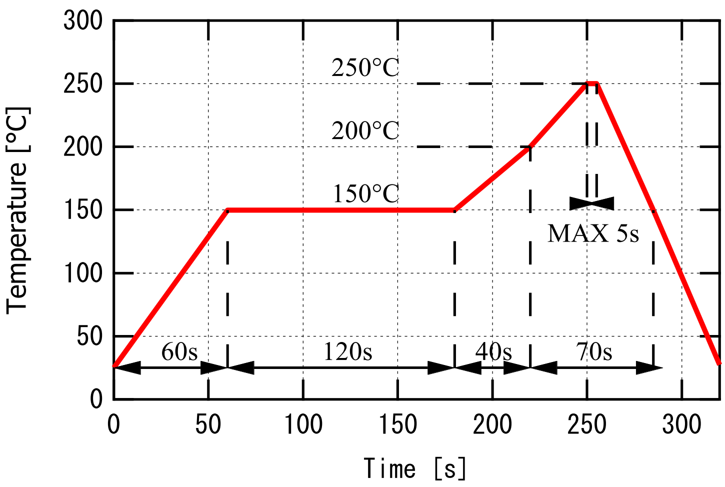


Radiation Characteristics

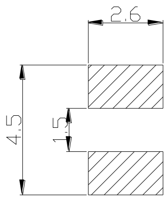


SMD Application

IR-Reflow Soldering Profile for lead free soldering

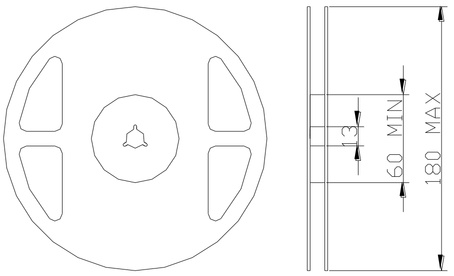


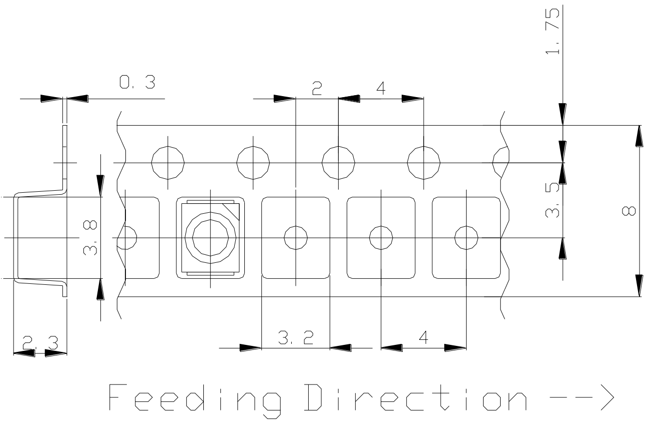
Recommended land layout (Unit:mm)



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.

Disclaimer

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements. Product data and parameters may vary by user application and over time.

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2013.02