

SMT870-23

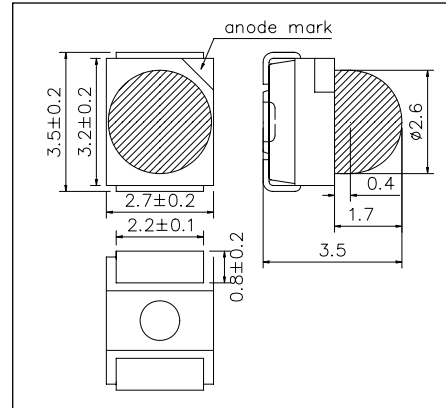
High Performance Infrared TOP IR LED with Lens

SMT870-23 consists of a AlGaAs LED mounted on the lead frame as TOP LED package with plastic ball lens. It is 22mW typical of output power and 40mW/sr of radiant intensity. It emits a spectral band of radiation at 870nm.

<Specifications>

1. Product Name: TOP IR LED
2. Type Number: SMT870-23
3. Chip:
 - Chip Material: AlGaAs
 - Peak Wavelength: 870nm
4. Package
 - Lead Frame Die: Silver Plated
 - Package Resin: 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	160	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	500	mA
Reverse Voltage	VR	5	V
Operating Temperature	TOPR	-20 ~ +80	°C
Storage Temperature	TSTG	-30 ~ +80	°C
Soldering Temperature**	TSOL	240	°C

* Duty=1% and Pulse Width=10us.

**Soldering condition must be completed within 3 second at 230 °C.

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.50	1.70	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA	16	22		mW
Radiant Intensity**	IE	IF=50mA	20	40		mW/sr
Peak wavelength	λP	IF=50mA	855	870	885	nm
Half Width	$\Delta\lambda$	IF=50mA		40		nm
Viewing Half Angle	$\theta 1/2$	IF=50mA		± 15		deg
Rise Time	tr	IF=50mA		15		ns
Fall Time	tf	IF=50mA		10		ns

* Measured by Photodyne #500

** Measured by Tektronix J-6512

