

SMT970 High Performance Infrared TOP IR LED

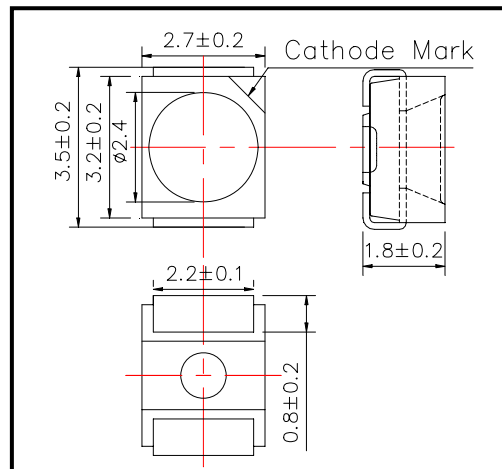
SMT970 consists of a GaAs LED mounted on the lead frame as TOP LED package and is 4mW typical of output power.

It emits a spectral band of radiation at 970nm.

◆ Outer dimension (Unit:mm)

◆ Specifications

1) Product Name	TOP IR LED
2) Type No.	SMT970
3) Chip	
(1) Chip Material	GaAs
(2) Peak Wavelength	970nm typ.
4) Package	
(1) Lead Frame Die	Silver Plated
(2) Package Resin	PPA Resin
(3) Lens	Epoxy Resin



◆ Absolute Maximum Rating

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	PD	140	mW	Ta=25°C
Forward Current	IF	100	mA	Ta=25°C
Pulse Forward Current	IFP	500	mA	Ta=25°C
Reverse Voltage	VR	5	V	Ta=25°C
Operating Temperature	TOPR	-20 ~ +80	°C	
Storage Temperature	TSTG	-30 ~ +800	°C	
Soldering Temperature	TSOL	240	°C	

‡ Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

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

◆ Electro-Optical Characteristics [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.30	1.45	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power	PO	IF=50mA	2.0	4.0		mW
Radiant Intensity	IE	IF=50mA		1.5		mW/sr
Peak Wavelength	λP	IF=50mA	960	970	980	nm
Half Width	Δλ	IF=50mA		50		nm
Viewing Half Angle	θ 1/2	IF=50mA		±55		deg.
Rise Time	tr	IF=50mA		1000		ns
Fall Time	tf	IF=50mA		500		ns

‡ Total Radiated Power is measured by Photodyne #500

‡ Radiant Intensity is measured by Tektronix J-6512.