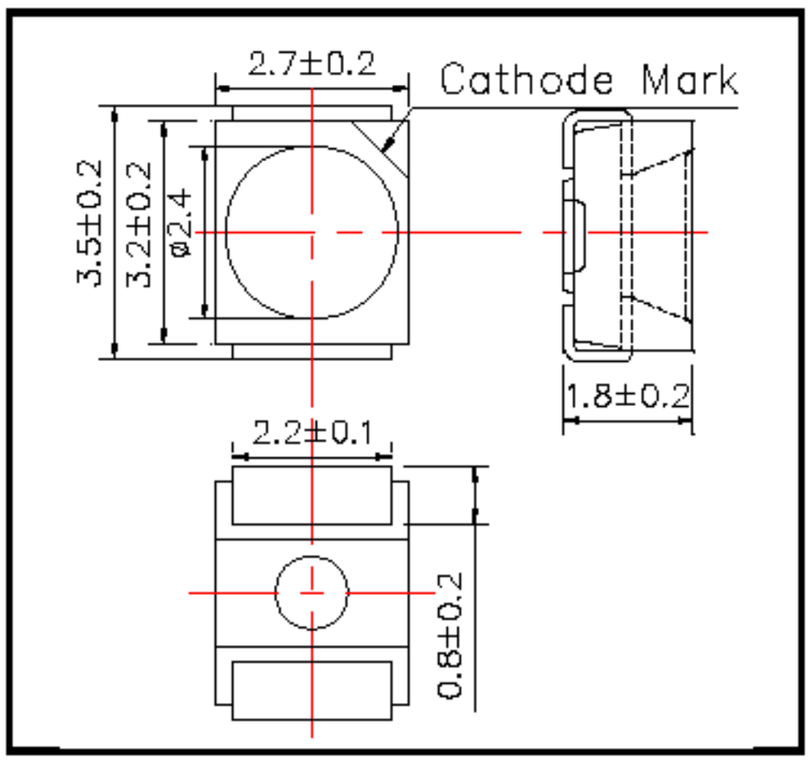
SMT940 High Performance Infrared TOP IR LED

SMT940 consists of a GaAs LED mounted on the lead frame as TOP LED package and is 10mW typical of output power.
It emits a spectral band of radiation at 940nm.

◆Specifications

1) Product Name	TOP IR LED
2) Type No.	SMT940
3) Chip	
(1) Chip Material	GaAs
(2) Peak Wavelength	940nm typ.
4) Package	
(1) Lead Frame Die	Silver Plated
(2) Package Resin	PPA Resin
(3) Lens	Epoxy Resin

◆Outer dimension (Unit: mm)



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

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	140	mW	Ta=25°C
Forward Current	I_F	100	mA	Ta=25°C
Pulse Forward Current	I_{FP}	500	mA	Ta=25°C
Reverse Voltage	V_R	5	V	Ta=25°C
Operating Temperature	T_{OPR}	-20 ~ +80	°C	
Storage Temperature	T_{STG}	-30 ~ +800	°C	
Soldering Temperature	T_{SOL}	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	V_F	I_F=50mA		1.30	1.45	V
Reverse Current	I_R	V_R=5V			10	uA
Total Radiated Power	P_O	I_F=50mA	5.0	10.0		mW
Radiant Intensity	I_E	I_F=50mA		4		mW/sr
Peak Wavelength	λ_P	I_F=50mA	930	940	950	nm
Half Width	$\Delta\lambda$	I_F=50mA		50		nm
Viewing Half Angle	$\theta_{1/2}$	I_F=50mA		±55		deg.
Rise Time	tr	I_F=50mA		1000		ns
Fall Time	tf	I_F=50mA		500		ns

‡Total Radiated Power is measured by Photodyne #500
‡Radiant Intensity is measured by Tektronix J-6512.

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