

SMT870N

High Performance Infrared TOP IR LED

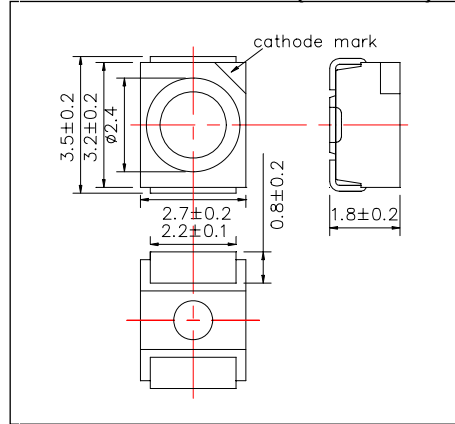
SMT870N consists of an AlGaAs LED mounted on the lead frame as TOP LED package and is 20mW typical of output power.

It emits a spectral band of radiation at 870nm.

<Specifications>

1. Product Name: TOP IR LED
2. Type Number: SMT870N
3. Chip:
 - Chip Material: AlGaAs
 - Dimension: 0.4mm x 0.4mm
 - Peak Wavelength: 870nm
4. Package
 - Lead Frame Die: Silver Plated
 - Package Resin: PPA Resin
 - Lens: Epoxy Resin

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	1000	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 DC		1.45	1.60	V
		IF=100mA, tp=20ms		1.50	1.80	
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA DC	15	20		mW
		IF=100mA, tp=20ms		40		
Radiant Intensity**	IE	IF=50mA DC		10		mW/sr
		IF=100mA, tp=20ms		20		
Peak Wavelength	λP	IF=50mA DC	860	870	880	nm
Half Width	Δλ	IF=50mA DC		40		nm
Viewing Half Angle	θ1/2	IF=50mA DC		±63		deg
Rise Time	tr	IF=50mA DC		15		ns
Fall Time	tf	IF=50mA DC		10		ns

* Measured by Photodyne #500

** Measured by Tektronix J-6512

