SMC870(SMC870N)

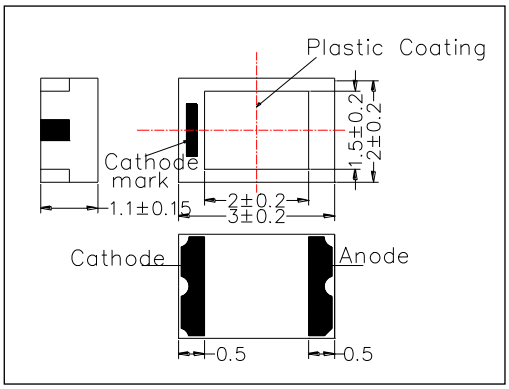
High Performance Infrared SMD LED on Ceramics

SMC870 consists of an AlGaAs LED mounted on the ceramics package and is 38mW typical of output power. It emits a spectral band of radiation at 870nm and is sealed with silicone or epoxy resin.

<Specifications>

1. Product Name: Ceramics SMD IRED
2. Type Number: SMC870
3. Chip:
   - Chip Material: AlGaAs
   - Chip Demension: 0.4mm x 0.4mm
   - Peak Wavelength: 870nm type
4. Package
   - Package: Ceramics
   - Lens: Silicone or Epoxy Resin

Outer Dimension (Unit:mm)



Absolute Maximum Ratings				
Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	PD	160	mW	Ta=25℃
Forward Current	IF	100	mA	Ta=25℃
Pulse Forward Current*	IFP	1000	mA	Ta=25℃
Reverse Voltage	VR	5	V	Ta=25℃
Junction Temperature	Tj	100	℃	
Thermal Resistance	Rthja	190	K/W	
Operating Temperature	TOPR	-20 ~ +80	℃	
Storage Temperature	TSTG	-30 ~ +80	℃	
Soldering Temperature**	TSOL	250	℃	

* Duty=1% and Pulse Width=10us
** Soldering condition must be completed within 5 seconds at 250 ℃

Electro-Optical Characteristics[Ta=25℃]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA DC		1.45	1.60	V
		IF=100mA, tp=20ms		1.50	1.8	
Reverse Current	IR	VR=5V			10	uA
Radiated Power*	PO	IF=50mA DC	15.0	19.0		mW
		IF=100mA, tp=20ms		38.0		
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		±55		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

RoHS Compliant

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