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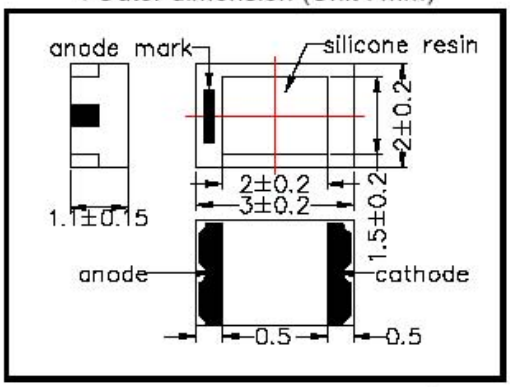
SMC830

High Performance infrared SMD LED on ceramics

SMC830 consists of an AlGaAs LED mounted on the ceramics package and is sealed with silicone or epoxy resin.
It emits a spectral band of radiation at 830nm.

♦Outer dimension (Unit : mm)



♦Specifications

1) Product Name	SMD type infrared LED
2) Type No.	SMC830
3) Chip	
(1) Chip Material	AlGaAs
(2) Peak Wavelength	830nm typ.
4) Package	
(1) Package	Ceramics
(2) Lens	Silicone or Epoxy resin

♦Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	190	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 ~ +80	°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 240°C

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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	I_F=50mA		1.60	1.80	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	3.0	5.0		mW/sr
Peak Wavelength	λ_P	I_F=50mA		830		nm
Half Width	$\Delta\lambda$	I_F=50mA		35		nm
Viewing Half Angle	$\theta_{1/2}$	I_F=50mA		±55		deg.
Rise Time	tr	I_F=50mA		60		ns
Fall Time	tf	I_F=50mA		40		ns

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