

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.

Specifications

- 1) Product Name SMD type red color 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	T _a =25°C
Forward Current	I _F	100	mA	T _a =25°C
Pulse Forward Current	I _{FP}	500	mA	T _a =25°C
Reverse Voltage	V _R	5	V	T _a =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 [T_a=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	Δλ	I _F =50mA		35		nm
Viewing Half Angle	θ _{1/2}	I _F =50mA		±55		deg.
Rise Time	t _r	I _F =50mA		60		ns
Fall Time	t _f	I _F =50mA		40		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.

Outer dimension (Unit : mm)

