

Lead (Pb) Free Product – RoHS Compliant

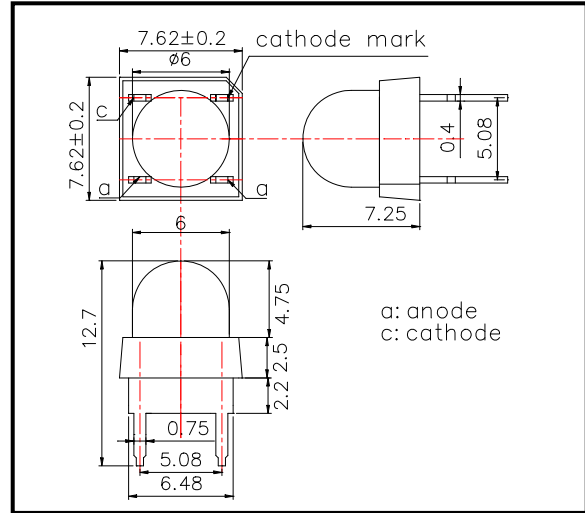
FL830-03-80 High Power type LED

FL830-03-80 is an AlGaAs LED mounted on a lead frame and molded with super beam lens. On forward bias, it emits a band of visible light which peaks 830nm.

◆Outer dimension (Unit: mm)

◆Specifications

- 1) Product Name Super Flux mold type LED
- 2) Type No. FL830-03-80
- 3) Chip
 - (1) Chip Material GaAlAs
 - (2) Chip Dimension 800um*800um
 - (3) Peak Wavelength 830nm typ.
- 4) Package
 - (1) Type Super Beam type LED
 - (2) Resin Material Epoxy Resin
 - (3) Lead Frame Silver Plated Copper



◆Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P _D	400	mW	T _a =25°C
Forward Current	I _F	250	mA	T _a =25°C
Pulse Forward Current	I _{FP}	2000	mA	T _a =25°C
Reverse Voltage	V _R	10	V	T _a =25°C
Operating Temperature	T _{OPR}	-30 ~ +85	°C	
Storage Temperature	T _{STG}	-30 ~ +100	°C	
Soldering Temperature	T _{SOL}	260	°C	

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Soldering condition: Soldering condition must be completed within 3 seconds at 260°C

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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =100mA		1.48	1.70	V
Pulsed Forward Voltage	V _F	I _{FP} =2A		3.0		V
Reverse Current	I _R	V _R =10V			10	uA
Total Radiated Power	P _O	I _F =100mA	22.0	28.0		mW
Radiant Intensity	I _E	I _F =100mA		120		mW/sr
Peak Wavelength	λ _P	I _F =50mA	815	830	845	nm
Half Width	Δλ	I _F =50mA		25		nm
Viewing Half Angle	θ _{1/2}	I _F =50mA		±15		deg.
Rise Time	t _r	I _F =50mA		80		ns
Fall Time	t _f	I _F =50mA		80		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.

Marubeni America Corporation

3945 Freedom Circle, Suite 1000, Santa Clara, CA 95054
408-330-0650 (Ext. 330), 408-330-0655 (Fax), sales@tech-led.com