

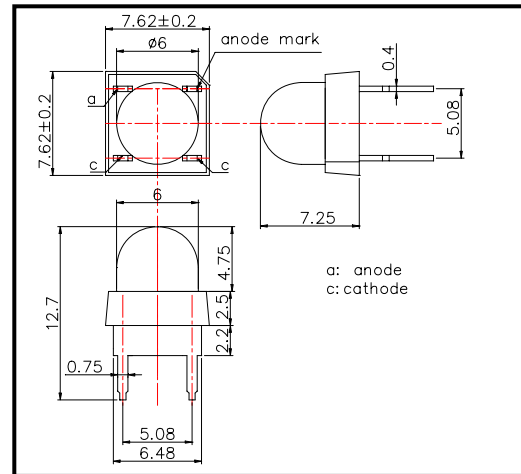
## FL850-03-80 High Power type LED

FL850-03-80 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 850nm. These devices are intended to be operated at pulsed current of 4A under maximum 4.5V for stable long life.

### ◆ Specifications

- |                     |                          |
|---------------------|--------------------------|
| 1) Product Name     | Super Flux mold type LED |
| 2) Type No.         | FL850-03-80              |
| 3) Chip             |                          |
| (1) Chip Material   | GaAlAs                   |
| (2) Chip Dimension  | 800um*800um              |
| (3) Peak Wavelength | 850nm typ.               |
| 4) Package          |                          |
| (1) Type            | Super Beam type LED      |
| (2) Resin Material  | Epoxy Resin              |
| (3) Lead Frame      | Silver Plated Copper     |

### ◆ Outer dimension (Unit: mm)



### ◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	PD	310	mW	Ta=25°C
Forward Current	IF	500	mA	Ta=25°C
Pulse Forward Current	IFP	4000	mA	Ta=25°C
Reverse Voltage	VR	10	V	Ta=25°C
Operating Temperature	TOPR	-30 ~ +85	°C	
Storage Temperature	TSTG	-30 ~ +100	°C	
Soldering Temperature	TSOL	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 [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=200mA		1.5	1.8	V
Pulsed Forward Voltage	VF	IFP=4A		3.3	4.5	V
Reverse Current	IR	VR=10V			10	uA
Total Radiated Power	PO	IF=200mA	40.0	75.0		mW
Radiant Intensity	IE	IF=200mA		250		mW/sr
Peak Wavelength	λP	IF=50mA	840	850	860	nm
Half Width	Δλ	IF=50mA		40		nm
Viewing Half Angle	θ 1/2	IF=50mA		±15		deg.
Rise Time	tr	IF=50mA		15		ns
Fall Time	tf	IF=50mA		10		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.