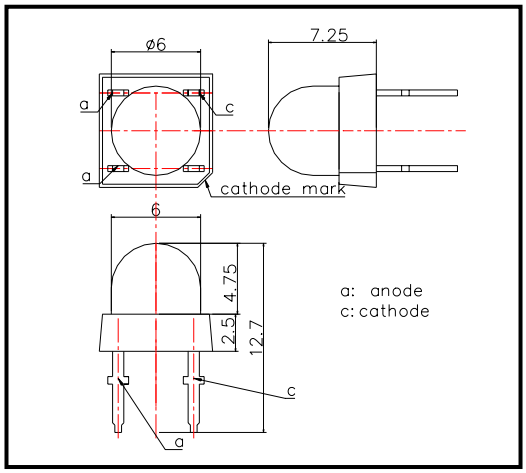
FL850-03-80 High Power type LED

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.

♦Outer dimension (Unit: mm)



♦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	Soldered

♦Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	310	mW	Ta=25°C
Forward Current	I_F	200	mA	Ta=25°C
Pulse Forward Current	I_{FP}	4000	mA	Ta=25°C
Reverse Voltage	V_R	10	V	Ta=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 [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	I_F=100mA		1.4	1.5	V
Pulsed Forward Voltage	V_F	I_{FP}=4A		3.3	4.5	V
Reverse Current	I_R	V_R=10V			10	uA
Total Radiated Power	P_O	I_F=100mA	35.0	60.0		mW
Radiant Intensity	I_E	I_F=100mA		230		mW/sr
Peak Wavelength	λ_P	I_F=50mA	840	850	860	nm
Half Width	$\Delta\lambda$	I_F=50mA		40		nm
Viewing Half Angle	$\theta_{1/2}$	I_F=50mA		±8		deg.
Rise Time	t_r	I_F=50mA		15		ns
Fall Time	t_f	I_F=50mA		10		ns

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