PRELIMINARY

epitex

Opto-Device & Custom LED Super Beam type LED BL940-1100-01

Lead (Pb) Free Product – RoHS Compliant

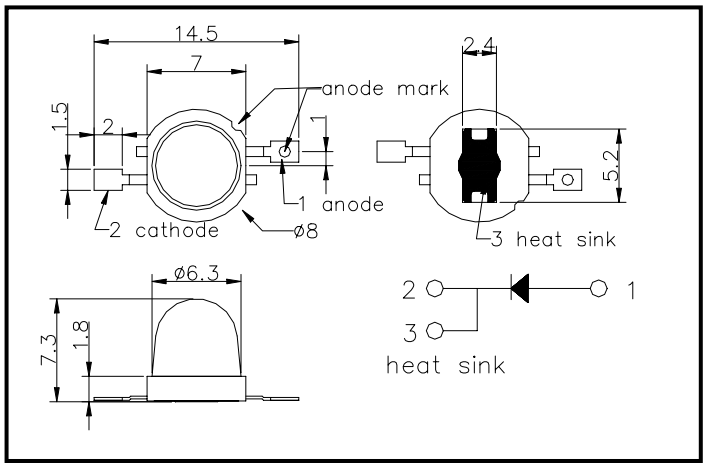
BL940-1100-01 High Power type Top LED with Lens

BL940-1100-01 is an GaAs LED mounted on copper heat sink and molded with epoxy lens.
On forward bias, it emits a band of radiation which peaks 940nm.
These devices are able to be operated at pulsed current of 4A under 2.6V for stable long life.

♦Specifications

1) Product Name	Super Flux type LED
2) Type No.	BL940-1100-01
3) Chip	
(1) Chip Material	GaAs
(2) Chip Dimension	1000um*1000um
(3) Peak Wavelength	940nm 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	P_D	900	mW	Ta=25°C
Forward Current	I_F	600	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}	265	°C	

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.
‡Soldering condition: Soldering condition must be completed within 3 seconds at 265°C

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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	I_F=200mA		1.25	1.5	V
Pulsed Forward Voltage	V_F	I_{FP}=4A		2.6	3.5	V
Reverse Current	I_R	V_R=10V			10	uA
Total Radiated Power	P_O	I_F=200mA	25.0	45.0		mW
Radiant Intensity	I_E	I_F=200mA		90		mW/sr
Peak Wavelength	λ_P	I_F=50mA		940		nm
Half Width	$\Delta\lambda$	I_F=50mA		60		nm
Viewing Half Angle	$\theta_{1/2}$	I_F=50mA		±7		deg.
Rise Time	tr	I_F=50mA		1000		ns
Fall Time	tf	I_F=50mA		500		ns

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

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