Lead (Pb) Free Product – RoHS Compliant

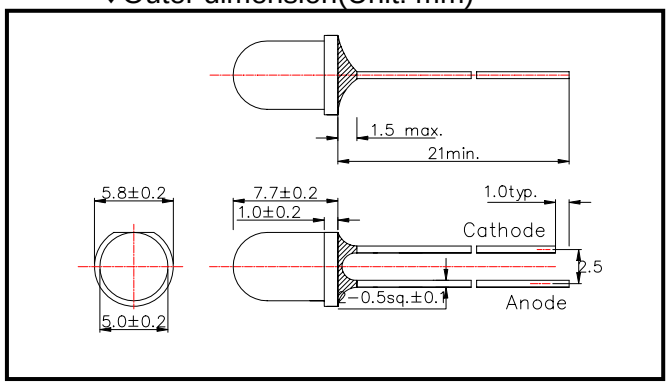
L850D-04-50L6CU Infrared LED Lamp for High Radiant Intensity

L850D-04-50L6CU is an AlGaAs LED mounted on a copper made lead frame with a clear epoxy lens.
On forward bias, it emits a spectral band of radiation which peaks at 850nm.
These devices are intended to be operated at pulsed current of 2A under 3.5V typ.

♦Specifications

1)Product Name	Infrared LED Lamp
2)Type No.	L850D-04-50L6CU
3)Chip	
(1)Chip Material	AlGaAs
(2)Chip Dimension	500umx500um
(3)Peak Wavelength	850nm typ.
4)Package	
(1)Type	Φ5mm clear molding
(2)Resin Material	Epoxy Resin
(3)Lead Frame	Soldered on Cu made

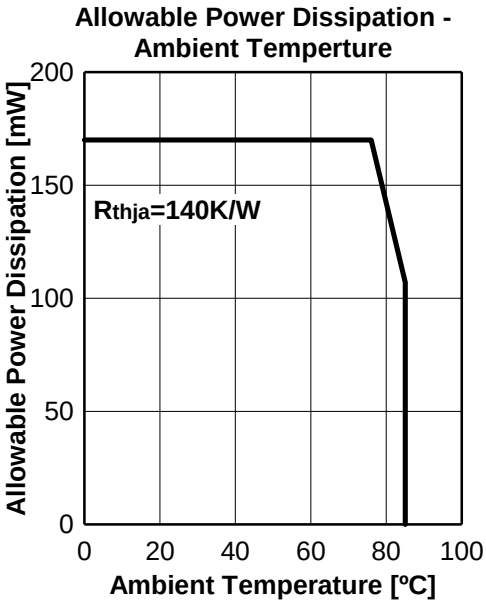
♦Outer dimension(Unit: mm)

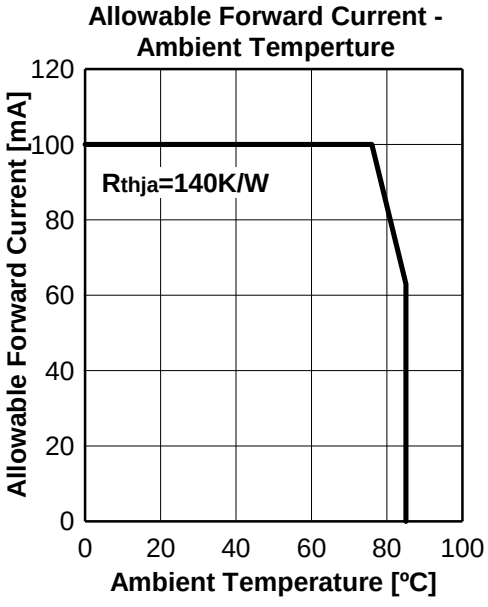


♦Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	170	mW	Ta=25°C
Forward Current	I_F	100	mA	Ta=25°C
Pulse Forward Current	I_{FP}	2000	mA	Ta=25°C
Reverse Voltage	V_R	5	V	Ta=25°C
Junction Tempperature	T_J	100	°C	
Thermal Resistance	Rthja	140	K/W	
Operating Temperature	T_{OPR}	-40 ~ +100	°C	
Storage Temperature	T_{STG}	-40 ~ +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
‡Thermal resistance: junction – ambient, leads 7mm, soldered on PCB.





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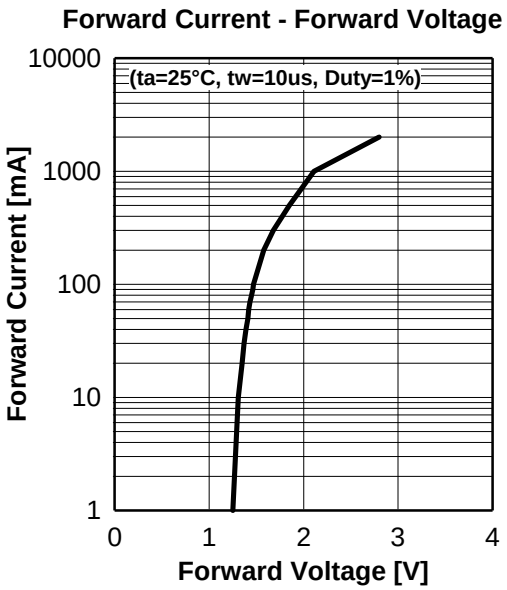
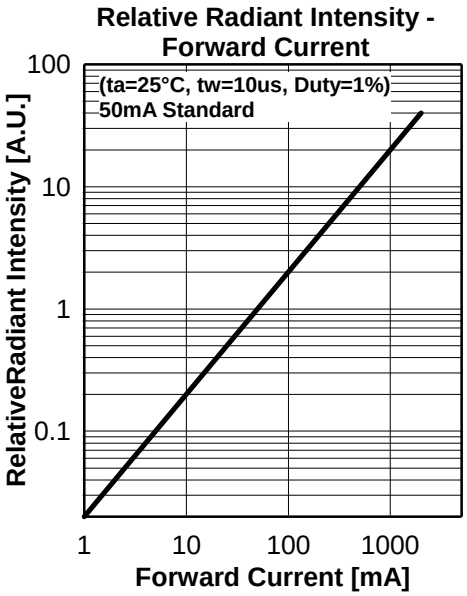
♦Electro-Optical Characteristics [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F/V_{FP}	I_F=50mA		1.45	1.55	V
		I_F=100mA,tp=20ms		1.50	1.70	
		I_{FP}=2A		3.4	4.0	
Reverse Current	I_R	V_R=5V			10	uA
Total Radiated Power	P_O	I_F=50mA	20.0	28.0		mW
		I_F=100mA,tp=20ms	40	56		
Radiant Intensity	I_E	I_F=50mA		50		mW/sr
		I_F=100mA,tp=20ms		100		
		I_{FP}=2A		1800		
Peak Wavelength	λ_P	I_F=50mA	835	850	865	nm
Half Width	$\Delta\lambda$	I_F=50mA		40		nm
Viewing Half Angle	$\theta_{1/2}$	I_F=50mA		±16		
Rise Time	tr	I_F=50mA		15		ns
Fall Time	tf	I_F=50mA		10		ns

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





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