Lead (Pb) Free Product – RoHS Compliant

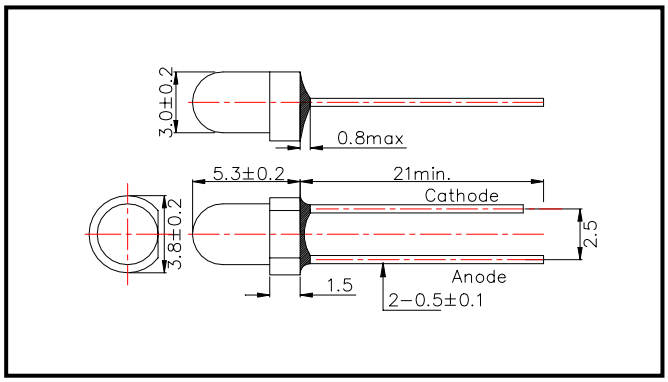
L770-34-2C Infrared LED Lamp

L770-34-2C is an AlGaAs LED mounted on a lead frame with a clear epoxy lens.
On forward bias, it emits a spectral band of radiation which peaks at 770nm.

♦Specifications

1)Product Name	Infrared LED Lamp
2)Type No.	L770-34-2C
3)Chip	
(1)Chip Material	AlGaAs
(2)Chip Size	400um*400um
(3)Peak Wavelength	770nm typ.
4)Package	
(1)Type	Φ3mm clear molding
(2)Resin Material	Epoxy Resin
(3) Lead Frame/ cup	0.35mm depth
(4)Lead Frame	Soldered (Lead Free)

♦Outer dimension (Unit: mm)



♦Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	230	mW	Ta=25°C
Forward Current	I_F	100	mA	Ta=25°C
Pulse Forward Current	I_{FP}	500	mA	Ta=25°C
Reverse Voltage	V_R	5	V	Ta=25°C
Junction Temperature	T_J	100	°C	
Thermal Resistance	Rthjp	250	K/W	
Operating Temperature	T_{OPR}	-40 ~ +85	°C	
Storage Temperature	T_{STG}	-40 ~ +100	°C	
Soldering Temperature	T_{SOL}	265	°C	

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.
‡Thermal resistance: junction – ambient, leads 7mm, soldered on PCB.

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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	I_F=50mA DC		1.70	2.00	V
		I_F=100mA, tp=20ms		2.00	2.30	
Total Radiated Power	P_O	I_F=50mA DC	15.0	20.0		mW
		I_F=100mA, tp=20ms		40.0		
Radiant Intensity	I_E	I_F=50mA DC		70		mW/sr
		I_F=100mA, tp=20ms		140		
Peak Wavelength	λ_P	I_F=50mA DC	755	770	785	nm
Half Width	$\Delta\lambda$	I_F=50mA DC		30		nm
Viewing Half Angle	$\theta_{1/2}$	I_F=50mA DC		±13		deg.
Rise Time	tr	I_F=50mA DC		50		ns
Fall Time	tf	I_F=50mA DC		25		ns

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

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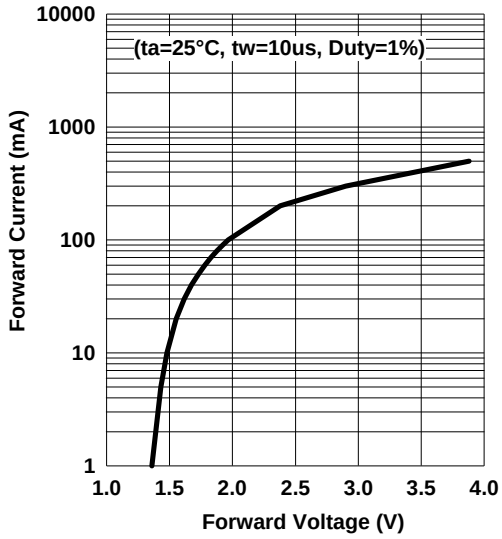
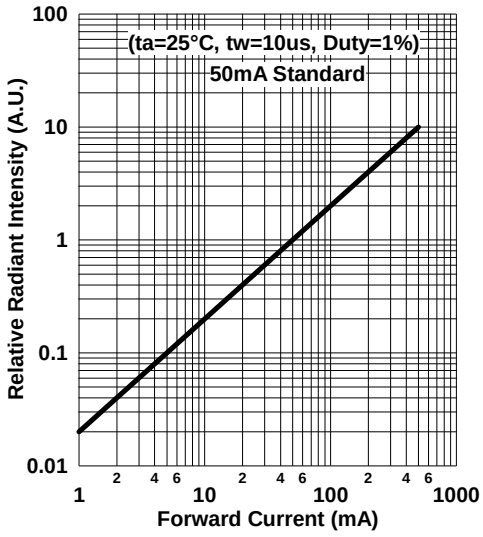
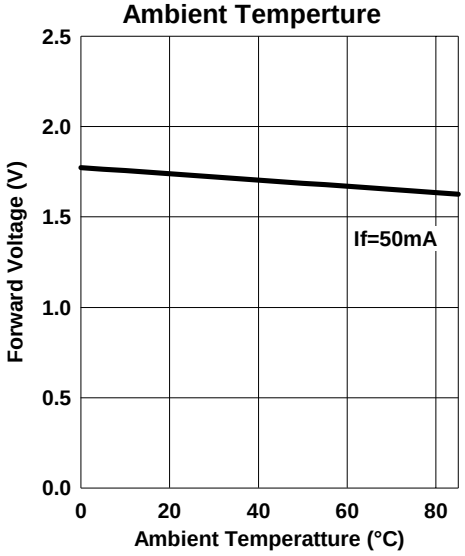
Forward Curent - Forward Voltage



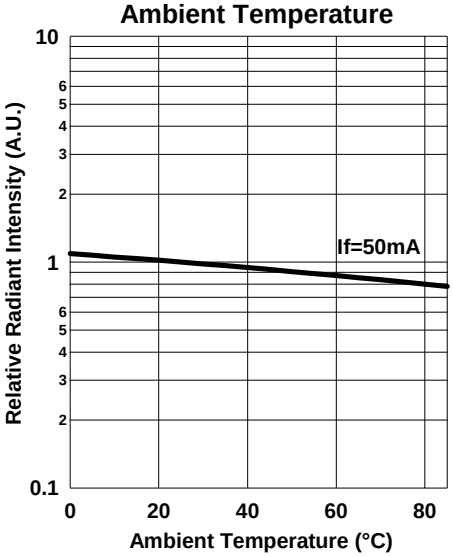
Relative Radiant Intensity - Forward Current



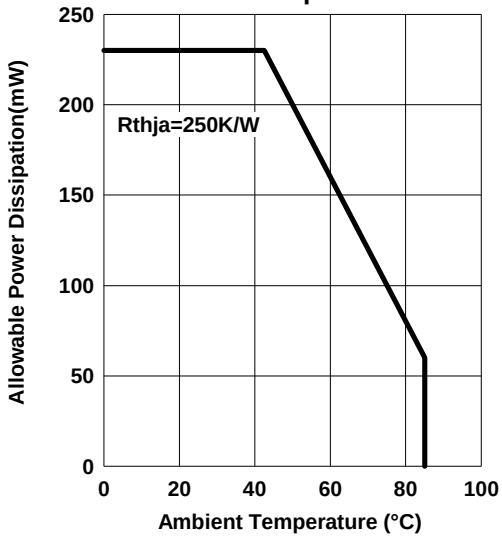
Forward Voltage - Ambient Temperture



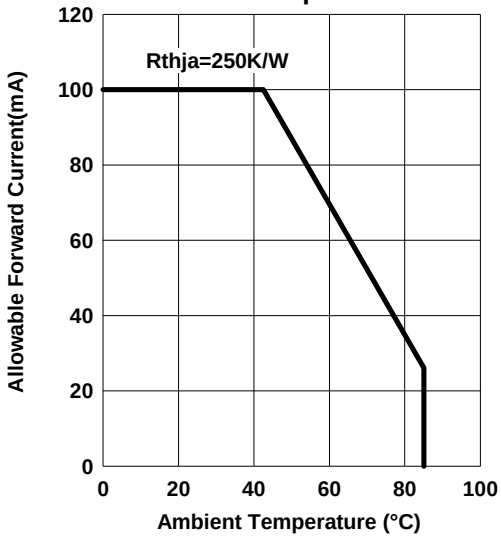
Relative Radiant Intensity - Ambient Temperature



Allowable Power Dissipation - Ambient Temperature



Allowable Forward Current - Ambient Temperature



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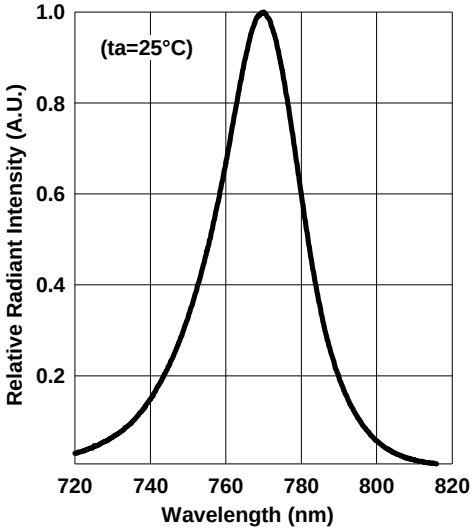
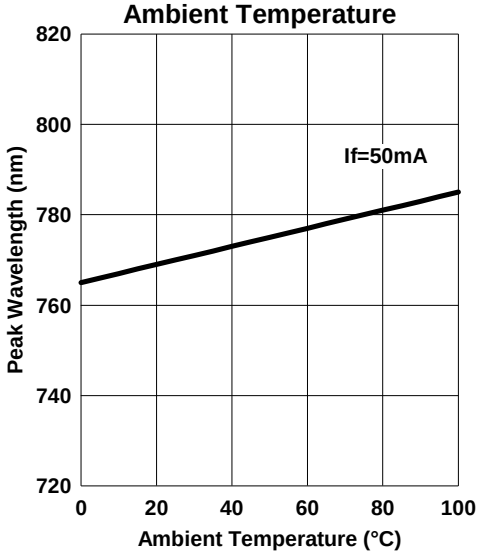
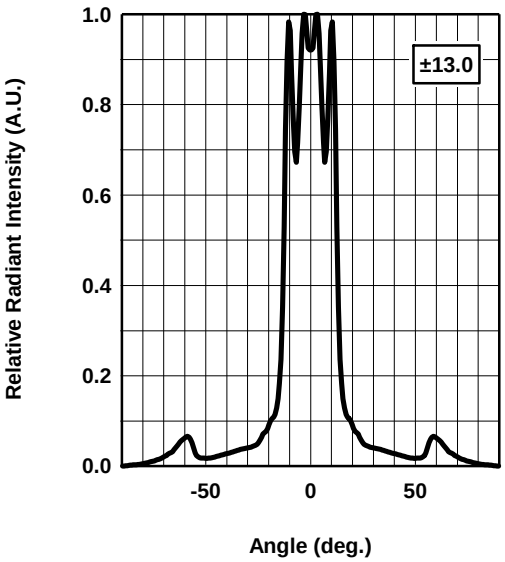
Relative Spectral Emission



Peak Wavelength - Ambient Temperature



Radiation Characteristics



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