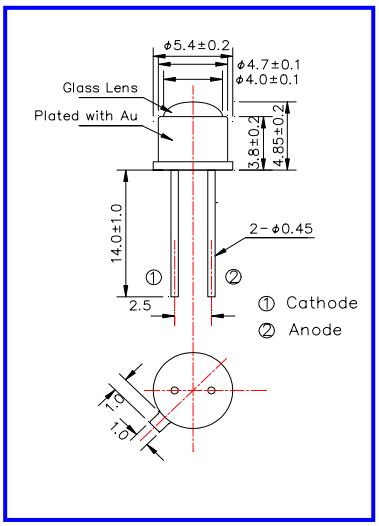
L890-40T42 stem type LED with high beam

L890-40T42 is AlGaAs LED mounted on TO-18 stem with unspherical glass lens, being designed for high beam uses.
On forward bias, it emits a spectral band of radiation which peaks at 880nm.

♦Features

1)High radiated intensity
2)High Reliability

♦Outer dimension(Unit:mm)



♦Specifications

1)Product Name	Infrared LED Lamp
2)Type No.	L890-40T42
3)Chip Spec.	
(1)Material	AlGaAs
(2)Peak Wavelength	880nm
4)Package	
(1)type	TO-18 stem
(2)Lens	Unspherical glass lens
(3)Cap	Gold plated

♦Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	150	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
Operating Temperature	T_{OPR}	-30 ~ +100	°C	
Storage Temperature	T_{STG}	-30 ~ +110	°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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	I_F=50mA		1.45	1.70	V
Reverse Current	I_R	V_R=5V			10	uA
Total Radiated Power	P_O	I_F=50mA		7		mW
Radiant Intensity	I_E	I_F=50mA		50.0		mW/sr
Peak Wavelength	λ_P	I_F=50mA	865	880	895	nm
Half Width	$\Delta\lambda$	I_F=50mA		65		nm
Viewing Half Angle	$\theta_{1/2}$	I_F=50mA		±6		deg.
Rise Time	tr	I_F=50mA		800		ns
Fall Time	tf	I_F=50mA		400		ns

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

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