

# L890-40 \_\_\_\_\_ High Power Metal Stem LED Lamp

The series of L890-40 \_\_\_\_\_ is an GaAlAs LED mounted on a metal stem and covered with epoxy resin or hermetically sealed with  $\Phi$ 5 glass-lens can. On forward bias it emits a high power radiation, which peaks at 880nm.

### ◆ Absolute Maximum Ratings

Item	Svmbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P <sub>D</sub>	150	mW	T <sub>a</sub> =25°C
Forward Current	I <sub>F</sub>	100	mA	T <sub>a</sub> =25°C
Pulse Forward Current	I <sub>FP</sub>	500	mA	T <sub>a</sub> =25°C
Reverse Voltage	V <sub>R</sub>	5	V	T <sub>a</sub> =25°C
Operating Temperature	T <sub>OPR</sub>	-30 ~ +90	°C	T <sub>a</sub> =25°C
Storage Temperature	T <sub>STG</sub>	-30 ~ +100	°C	
Soldering Temperature	T <sub>SOL</sub>	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 [T<sub>a</sub>=25°C]

Item	Svmbol	Condition	Minimum	Tvpical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =50mA		1.45	1.70	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V			10	uA
Peak Wavelength	$\lambda$ <sub>P</sub>	I <sub>F</sub> =50mA	865	880	895	nm
Half Width	$\Delta\lambda$	I <sub>F</sub> =50mA		65		nm
Rise Time	t <sub>r</sub>	I <sub>F</sub> =50mA		800		ns
Fall Time	t <sub>f</sub>	I <sub>F</sub> =50mA		400		ns

### ◆ Total Radiant Power and Radiant Intensity at I<sub>F</sub>=50mA [T<sub>a</sub>=25°C]

Type No.	Total Radiant Power unit:mW			Radiant Intensity unit:mW/sr			Viewing Half Angle
	Minimum	Typical	Maximum	Minimum	Typical	Maximum	
L890-40K00	7	12			3		±40°
L890-40K42	4	7			50		±6°
L890-40M00	8	14			7		±40°
L890-40M32	7	11.5			40		±10°
L890-40T52	3	5			3		±55°

‡Radiant Intensity is measured by Tektronix J6512

‡Total Radiated Power is measured by Photodyne #500.

### ◆ Outer dimension (Unit: mm)

