

# L910-40                High Power Metal Stem LED Lamp

The series of L910-40                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 910nm.

### ◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P <sub>D</sub>	160	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	Symbol	Condition	Minimum	Typical	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		910		nm
Half Width	$\Delta\lambda$	I <sub>F</sub> =50mA		60		nm
Rise Time	t <sub>r</sub>	I <sub>F</sub> =50mA		1000		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	
L910-40K00	5	8			2		±40°
L910-40K42	3	5			35		±6°
L910-40M00	6	9.5			4		±40°
L910-40M32	4.5	7.5			35		±10°
L910-40T52	2	3.5			2		±55°

‡Radiant Intensity is measured by Tektronix J6512

‡Total Radiated Power is measured by Photodyne #500.

### ◆ Outer dimension (Unit: mm)

