



LED940-40 _ _ _ High Power Metal Stem LED Lamp

The series of LED940-40 _ _ _ is a GaAs 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 940nm.

◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	140	mW	$T_a=25^\circ\text{C}$
Forward Current	I_F	100	mA	$T_a=25^\circ\text{C}$
Pulse Forward Current	I_{FP}	1000	mA	$T_a=25^\circ\text{C}$
Reverse Voltage	V_R	5	V	$T_a=25^\circ\text{C}$
Operating Temperature	T_{OPR}	-30 ~ +90	$^\circ\text{C}$	$T_a=25^\circ\text{C}$
Storage Temperature	T_{STG}	-30 ~ +100	$^\circ\text{C}$	
Soldering Temperature	T_{SOL}	260	$^\circ\text{C}$	

‡ 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 [$T_a=25^\circ\text{C}$]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	$I_F=50\text{mA}$		1.30	1.40	V
Reverse Current	I_R	$V_R=5\text{V}$			10	μA
Peak Wavelength	λ_{P**}	$I_F=50\text{mA}$	925	940	955	nm
Half Width	$\Delta\lambda_{**}$	$I_F=50\text{mA}$		50		nm
Rise Time	t_r	$I_F=50\text{mA}$		1000		ns
Fall Time	t_f	$I_F=50\text{mA}$		500		ns

◆ Total Radiant Power and Radiant Intensity at $I_F=50\text{mA}$ [$T_a=25^\circ\text{C}$] **

Type No.	Total Radiant Power unit:mW			Radiant Intensity unit:mW/sr			Viewing Half Angle
	Minimum	Typical	Maximum	Minimum	Typical	Maximum	
940-40K00	10	15			3		$\pm 40^\circ$
940-40K42	5	9			45		$\pm 6^\circ$
940-40M00	11	18			10		$\pm 40^\circ$
940-40M32	8	13			40		$\pm 10^\circ$
940-40T52	3.5	6			3		$\pm 55^\circ$

** ‡ Radiant Intensity is measured by Tektronix J6512

‡ Total Radiated Power is measured by Photodyne #500.

◆ Outer dimension (Unit: mm)

