

L870-40 _____ (LN870- _____) High Power Metal Stem LED Lamp

The series of L870-40 _____ is an GaAlAs LED mounted on a metal stem and covered with epoxy resin or hermetically sealed with Φ 5 glass-lens can. On forward bias it emits a high power radiation, which peaks at 870nm.

◆ Absolute Maximum Ratings

Item	Svmbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P _D	160	mW	T _a =25°C
Forward Current	I _F	100	mA	T _a =25°C
Pulse Forward Current	I _{FP}	1000	mA	T _a =25°C
Reverse Voltage	V _R	5	V	T _a =25°C
Operating Temperature	T _{OPR}	-30 ~ +90	°C	T _a =25°C
Storage Temperature	T _{STG}	-30 ~ +100	°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 [T_a=25°C]

Item	Svmbol	Condition	Minimum	Tvpical	Maximum	Unit
Forward Voltage	V _F	I _F =50mA		1.55	1.70	V
Reverse Current	I _R	V _R =5V			10	uA
Peak Wavelength	λ _P	I _F =50mA	855	870	885	nm
Half Width	$\Delta\lambda$	I _F =50mA		40		nm
Rise Time	t _r	I _F =50mA		15		ns
Fall Time	t _f	I _F =50mA		10		ns

◆ Total Radiant Power and Radiant Intensity at I_F=50mA [T_a=25°C]

Type No.	Total Radiant Power unit:mW			Radiant Intensity unit:mW/sr			Viewing Half Angle
	Minimum	Typical	Maximum	Minimum	Typical	Maximum	
L870-40K00	12	20			8		±40°
L870-40K42	8	13			80		±6°
L870-40M00	13	22			12		±40°
L870-40M32	11	18			75		±10°
L870-40T52	5	8			5		±55°

‡Radiant Intensity is measured by Tektronix J6512

‡Total Radiated Power is measured by Photodyne #500.

◆ Outer dimension (Unit: mm)

