

## 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  $\Phi 5$  glass-lens can.

On forward bias it emits a high power radiation, which peaks at 870nm.

### ◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	PD	160	mW	Ta=25°C
Forward Current	IF	100	mA	Ta=25°C
Pulse Forward Current	IFP	1000	mA	Ta=25°C
Reverse Voltage	VR	5	V	Ta=25°C
Operating Temperature	TOPR	-30 ~ +90	°C	Ta=25°C
Storage Temperature	TSTG	-30 ~ +100	°C	
Soldering Temperature	TSOL	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 [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.55	1.70	V
Reverse Current	IR	VR=5V			10	uA
Peak Wavelength	$\lambda P$	IF=50mA	855	870	885	nm
Half Width	$\Delta\lambda$	IF=50mA		40		nm
Rise Time	tr	IF=50mA		15		ns
Fall Time	tf	IF=50mA		10		ns

### ◆ Total Radiant Power and Radiant Intensity at IF=50mA [Ta=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		$\pm 40^\circ$
L870-40K42	8	13			80		$\pm 6^\circ$
L870-40M00	13	22			12		$\pm 40^\circ$
L870-40M32	11	18			75		$\pm 10^\circ$
L870-40T52	5	8			5		$\pm 55^\circ$

‡Radiant Intensity is measured by Tektronix J6512

‡Total Radiated Power is measured by Photodyne #500.

### ◆ Outer dimension (Unit: mm)

