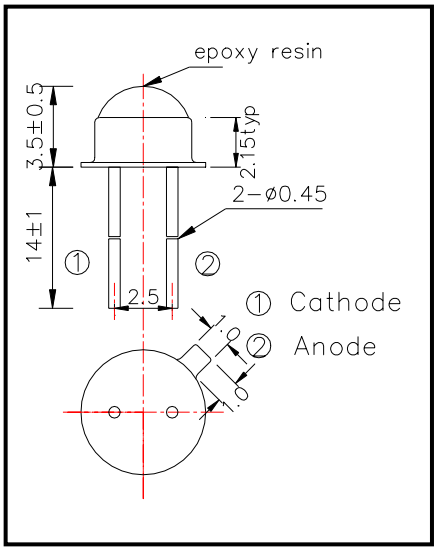
L870F-55M00 (LN870F-55M00) Stem type LED with epoxy lens

L870F-55M00 is with AlGaAs LED 550 micron square die mounted on TO-18 stem and with epoxy resin lens being designed for wide viewing angle.
On forward bias it emits a spectral band of radiation, which peaks at 870nm.

♦Features

1) 550um sq. die
2) Wide viewing angle
3) High Reliability

♦Outer dimension (Unit: mm)



♦Specifications

1) Product Name	Infrared LED Lamp
2) Type No.	L870-40M00
3) Chip Spec.	
(1) Chip size	550um*550um
(2) Material	AlGaAs
(3) Peak Wavelength	870nm
4) Package	
(1) Type	TO-18 stem
(2) Lens	Epoxy resin

♦Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	150	mW	Ta=25°C
Forward Current	I_F	100	mA	Ta=25°C
Pulse Forward Current	I_{FP}	1000	mA	Ta=25°C
Reverse Voltage	V_R	5	V	Ta=25°C
Operating Temperature	T_{OPR}	-30 ~ +80	°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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	I_F=50mA		1.40	1.55	V
		I_F=100mA		1.50	1.60	
		I_F=1A		3.0		
Total Radiated Power	P_O	I_F=50mA	13	22		mW
Radiant Intensity	I_E	I_F=50mA		12		mW/sr
Peak Wavelength	λ_P	I_F=50mA	860	870	880	nm
Half Width	$\Delta\lambda$	I_F=50mA		40		nm
Viewing Half Angle	$\theta_{1/2}$	I_F=50mA		±40		deg.
Rise Time	tr	I_F=50mA		15		ns
Fall Time	tf	I_F=50mA		10		ns

‡Total Radiated Power is measured by Photodyne #500
‡Radiant Intensity is measured by Tektronix J-6512.

EPITEX INC. : 4, Nishiaketa-Cho, Higashi-Kujyou, Minami-Ku, Kyoto, Japan
Tel.: ++81-75-682-2338 Fax: ++81-75-682-2267
e-mail: sales-dep@epitex.com http://www.epitex.com