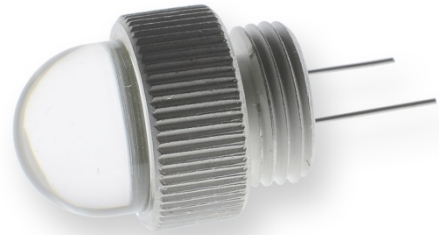




JET-870-05

- *Single Chip Design*
- *870 nm, 90 mW*
- *Ultra Narrow Beam Angle*
- *Homogeneous Square Beam Pattern*



Description

JET-870-05 is a single chip IR LED emitter, utilizing a single high power chip die with a clear epoxy lens offering **ultra low divergence beam** of perfectly square proportions. It features a full metal submount with **M12x1 thread** for convenient installation and ideal heat dissipation

Maximum Ratings

Parameter	Symbol	Values		Unit
		Min.	Max.	
Thermal Power	P_T		1200	mW
Operating Current	I_F		500	mA
Reverse Current (5V)	I_R		<100	μ A
Operating Temperature	T_{CASE}	- 20	+ 65	$^{\circ}$ C
Storage Temperature	T_{STG}	- 40	+ 85	$^{\circ}$ C
Soldering Temperature	T_{SOLDER}		260	$^{\circ}$ C

Electrical Characteristics ($T_{CASE} = 25^{\circ}\text{C}$, $I_F = 500\text{ mA}$)

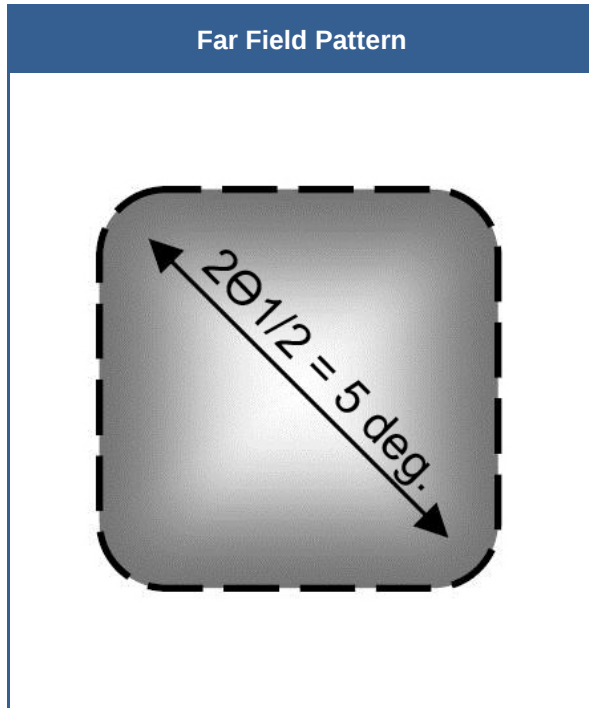
Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Emission Wavelength	λ_{peak}	850	870	890	nm
Optical Output Power	P_O		90		mW
Spectral Width (FWHM)	$\Delta\lambda$		40		nm
Operating Voltage	V_F		2.2	2.4	V
Beam Divergence (FWHM)	θ		5		deg
Thermal resistance	K/W		13		
Rise/Fall time	t_R/t_F		30/40		ns



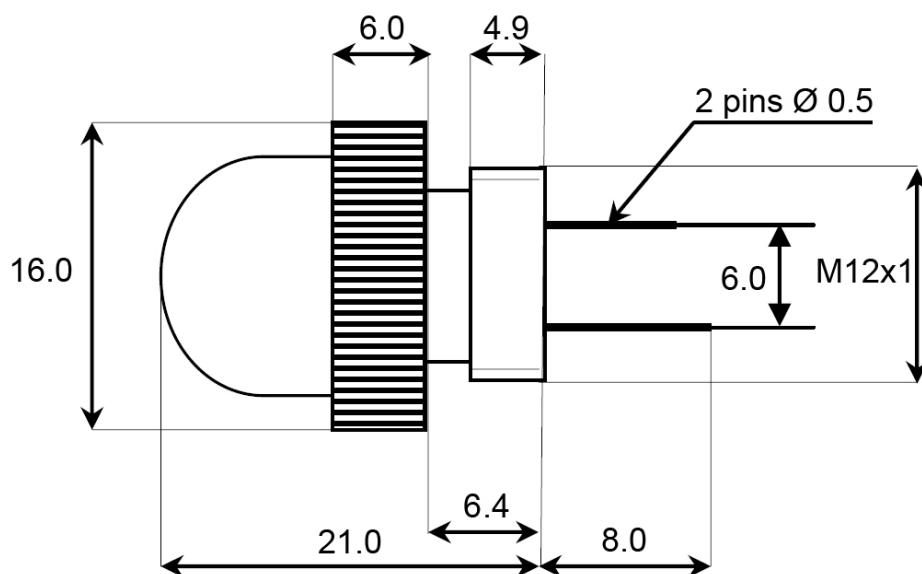


Optical Characteristics

Far Field Pattern



Drawing



Dimensions in mm