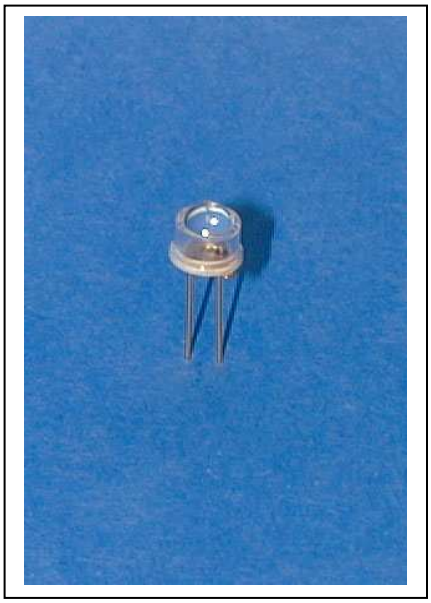
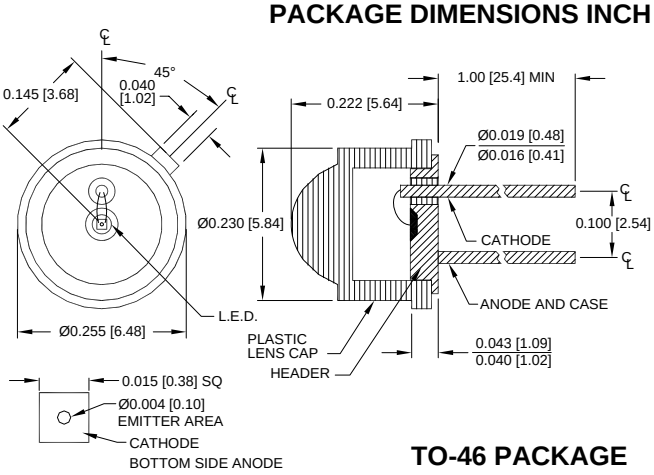
GaAlAs High Power IR LED Emitters
PDI-E825

Advanced Photonix, Inc.



PACKAGE DIMENSIONS INCH [mm]



TO-46 PACKAGE

CHIP DIMENSIONS INCH [mm]

FEATURES

- High speed
- High reliability
- Point source emission

DESCRIPTION

The **PDI-E825** is a high power 850 nm GaAlAs point source infrared emitter packaged in a TO-46 metal header with a clear plastic lens cap.

APPLICATIONS

- Fiber optic source
- Infrared sources
- Optical readers

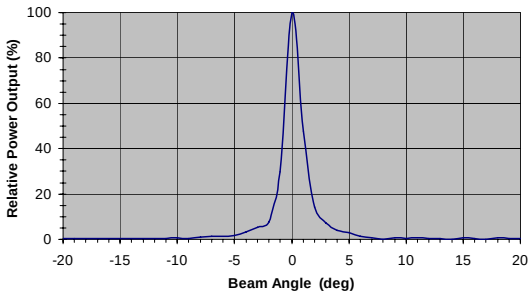
RoHS

ABSOLUTE MAXIMUM RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
P_d	Power Dissipation		200	mW
I_f	Continuous Forward Current		100	mA
I_p	Peak Forward Current		2.5	A
V_r	Reverse Voltage		2	V
T_{STG}	Storage Temperature	-55	+125	℃
T_O	Operating Temperature	-55	+125	℃
T_S	Soldering Temperature*		+240	℃

* 1/16 inch from case for 3 seconds max.

RADIATION PATTERN



ELECTRO-OPTICAL CHARACTERISTICS RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_o	Output Power	I_f = 100 mA	2.2	2.7		mW
V_f	Forward Voltage	I_f = 100 mA		1.7	2.2	V
V_r	Reverse Breakdown Voltage	I_f = 10 μA	2.0			V
λ_p	Peak Wavelength	I_f = 20 mA	830	850	870	nm
$\Delta\lambda$	Spectral Bandwidth @ 50% (FWHM)	I_f = 20 mA		35		nm
C_t	Terminal Capacitance	V_r = 0V, f = 1MHz		68		pF
t_r	Rise Time	I_f = 20 mA		15		nS
t_f	Fall Time	I_f = 20 mA		15		nS

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