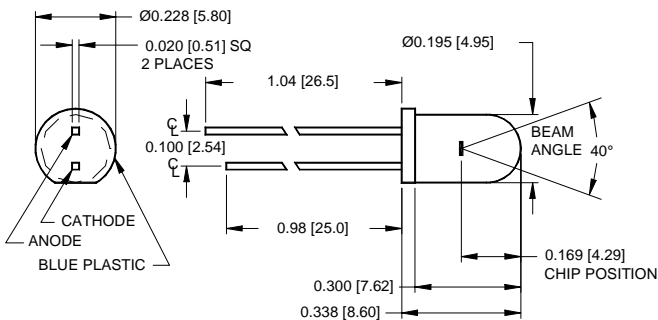




PACKAGE DIMENSIONS inch (mm)

INDUSTRY EQUIVALENTS
SFH485 & LTE-5238



BLUE TINT T 1 3/4 PACKAGE
40° HALF INTENSITY BEAM ANGLE

FEATURES

- High output power
- High reliability
- Medium emission angle

DESCRIPTION: The PDI-E806 infrared emitting diode uses high reliability liquid phase epitaxially grown GaAlAs. Optimized for high power, high efficiency. This 880 nm I.R. emitter is packaged in a low cost T 1 3/4 [5 mm diameter] package.

APPLICATIONS

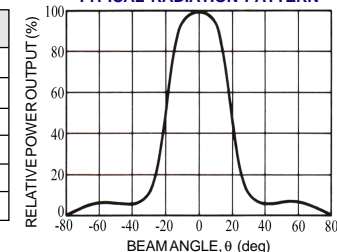
- Photoelectric switches
- Infrared sources
- Automatic controls

ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)

SYMBOL	PARAMETER	MIN	MAX	UNITS
Pd	Power Dissipation		160	mW
I _{FP}	Continuous Forward Current		100	mA
I _{FP}	Peak Forward Current (10μs, 10Hz)		2.5	A
V _R	Reverse voltage		5	V
To & Ts	Storage & Operating Temperature	-55	+100	°C
TS	Soldering Temperature*		+240	°C

*1/16 inch from case for 3 secs max

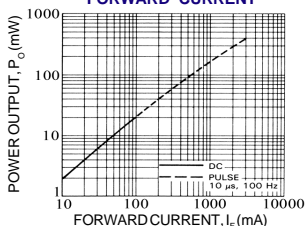
TYPICAL RADIATION PATTERN



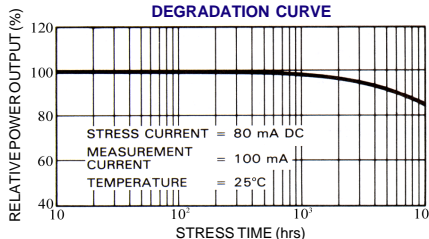
ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _E	Radiant Intensity	I _F = 50 mA	30	50		mW/Sr
V _F	Forward Voltage	I _F = 100 mA		1.6	2.0	V
V _R	Reverse Breakdown Voltage	I _F = 100 μA	5	30		V
λ _P	Peak Wavelength	I _F = 50 mA	883	880	886	nm
Δλ	Spectral Halfwidth	I _F = 50 mA		70		nm
C _i	Terminal Capacitance	V _R = 0 V, f = 1 MHz		20		pF
t _r	Rise Time	I _F = 100 mA		1.5		μs
t _f	Fall Time	I _F = 50 mA		0.8		μs

POWER OUTPUT vs FORWARD CURRENT



TYPICAL POWER OUTPUT DEGRADATION CURVE



SPECTRAL OUTPUT

