



FEATURES

- SOT-23 package
- Surface Mount
- Wide emission Angle

DESCRIPTION

The **PDI-E940** is a high power 940 nm and high power GaAs emitter, packaged in a small low cost SOT-23 surface mount package

APPLICATIONS

- Fiber optic sources
- Optical encoders
- Point light sources

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
P_d	Power Dissipation		170	mW
I_f	Continuous Forward Current		100	mA
I_p	Peak Forward Current		1	A
V_r	Reverse Voltage		5	V
T_{STG}	Storage Temperature	-25	+100	°C
T_O	Operating Temperature	-25	+100	°C
T_s	Soldering Temperature*		+240	°C

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

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_o	Output Power	$I_f = 50$ mA	18	22		mW
V_f	Forward Voltage	$I_f = 20$ mA		1.5	1.9	V
V_r	Reverse Breakdown Voltage	$I_f = 10$ μ A	5	30		V
λ_p	Peak Wavelength	$I_f = 100$ mA	920	940	960	nm
$\Delta\lambda$	Spectral Halfwidth	$I_f = 100$ mA		50		nm
C_t	Terminal Capacitance	$V_r = 0$ V, $f = 1$ MHz		25		pF
t_r	Rise Time	$I_f = 100$ mA		80		nS
t_f	Fall Time	$I_f = 100$ mA		180		nS

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