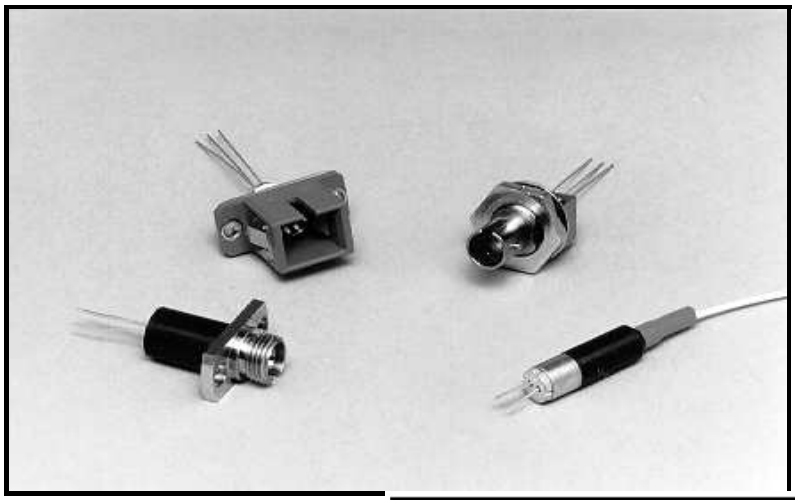
PE13W Series 1300nm ELEDS for Fiber Optics

PD-LD Inc. offers 1300nm Edge Emitting LEDs, ELEDs, in ready-to-use fiber coupled packages, including FC, ST and SC receptacles as well as fiber-pigtailed units. These 1300nm ELED devices have been packaged for optimal coupling into 9/125um optical fiber for use in single mode fiber optic applications. The semiconductors inherently fast rise and fall time make them ideal for high bandwidth applications. The wide optical spectrum, 60nm FWHM, of the semiconductor make them ideal for many noise sensitive applications.
The InGaAsP ELED's offered by PD-LD are of proven design and manufacture. These units are backward compatible with those applications previously using devices offered by Agilent (HP) , OKI and JDSUniphase. They typically couple 8 to 10uW into SMF.
All PD-LD ELED's incorporate a hermetically sealed semiconductor mounted in a TO can sub-assembly. These subassemblies are micro-positioned to various lens assemblies depending upon the package style and desired coupling efficiency. Fiber pigtailed devices are available with several choices of brackets to facilitate panel or pc board mounting.

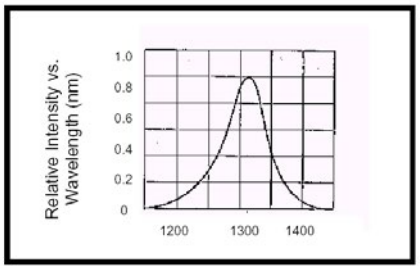


Features

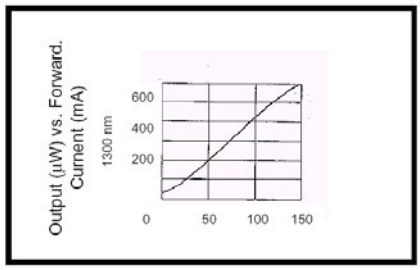
- **High reliability InGaAsP Diode**
- **Compact, robust receptacle & coax fiber-coupled package**
- **5 to 20 uW into SMF**

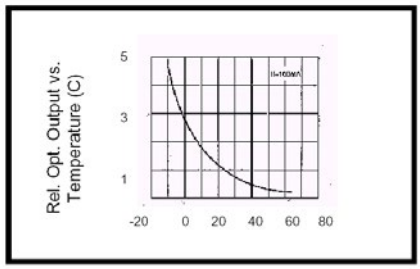
Applications

- **Fiberoptic communications systems**
- **Analog Transmission**
- **Ethernet Networking**



Typical ELED Characteristics





Performance Specifications

InGaAsP 1300nm ELEDs@25 C, 100mA
Center Wavelength 1300+/- 30nm , Spectral Width 40nm typ. 100nm max.

PD-LD Part No.	Fiber Coupled Power (uw) Min.	Typ.	Max.	Package Style	Mounting Features
PE13W0051FCA-0-0-01	5	8	-	Pigtailed FC/PC Connector	Co-Axial Bracket available
PE13W010ST71-Q-0	10	15	-	Receptacle ST Style	PC Board Mountable
PE13W015FC11-Q-0	15	20	-	Receptacle FC Style	Panel Mounting
PE13W010FC21-Q-0	10	15	-	Receptacle FC Style	Board Mountable
PE13W100ST83-D-0 Optimized for 62.5um MMF	100	125	-	Receptacle ST High Profile	Board Mountable

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LASER COMPONENTS

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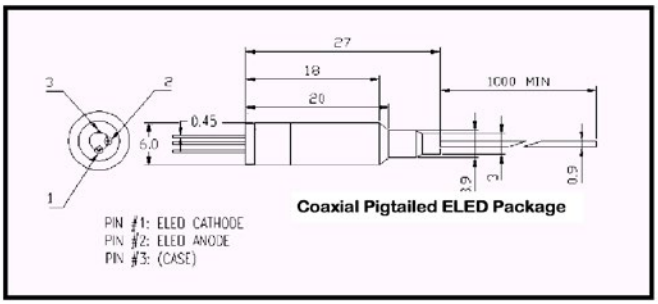
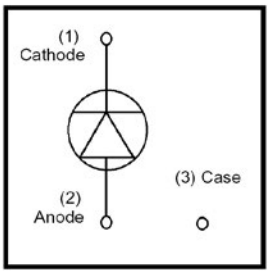
Physical Dimensions (mm)

A press-fit panel mount is available; see ordering information.



Pin Assignment



ELED Pinout

Optical and Electrical Characteristics
100mA operating current at 1.3V

Parameter	Symbol	Minimum	Typical	Maximum	Units	Note
Fiber coupled Power	Po	100	125		uW	62.5/125um
Rise and Fall Time (10-90%)	t_R, t_F		2.5	4.0	ns	
Bandwidth (3dB)	fc		150		MHz	
Peak Center Wavelength		1290	1310	1330	nm	
Spectral Width (FWHM)	Delta Lambda		40	60	nm	
Forward Voltage	V_F		1.2	1.7	V	
Leakage Current				80	uA	
Capacitance	1MHz, V_F=0			250	pF	
Wavelength Temperature Coefficient			0.4		nm/°C	

Absolute Maximums

Parameter	Value	Unit
Storage Temperature	-55 to 125	°C
Operating Temperature	-40 to 85	°C
Continuous Forward Current	100	mA
Peak Forward Current	150	mA
Reverse Voltage	2.0	V
Soldering Temperature (2mm from case for 10 sec)	240	°C

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PE13W Series 1300nm ELEDS for Fiber Optics

Ordering Information

Data Legend: **Pigtailed** SLEDs

PE WWW PPP F CC B-O-V-LL

E =ELED

WWW = Wavelength & Device Type
13W = 1300nm

PPP = Fiber-Coupled Power
005 = 5 µW
008 = 8 µW
010 = 10 µW
015 =15 µW
020 = 20 µW
100 = 100µW

F = Fiber Type
1 = 9/125 SMF
2 = 50/125 MMF
3 = 62.5/125 MMF
4 = 100/140 MMF
9 = Customer Supplied

CC = Connector Type
ST = ST/PC
SC = SC/PC
SA = SC/APC
FC = FC/PC
FA = FC/APC
FU = FC/UPC
00 = No Connector
TA = ST/APC
D4 = D4
BC = Bionic

B = Bracket Type
A = None
B = Panel Mount
C = Board Mount

O = Orientation
0 = N/A
A = Bracket Shipped Loose

V = Version
0 = Standard
Unique codes for specific requirements

LL = Length *(in meters)*
01 = 1m, **02** = 2m, **.5** = .5m etc.

Data Legend: **Receptacle** ELEDs

Ex: PE WWW PPP RRR F-O-V

E = ELED

WWW = Wavelength & Device Type
13W = 1300nm

PPP = Fiber-Coupled Power
005 = 5 µW
008 = 8 µW
010 = 10 µW
015 =15 µW
020 = 20 µW
100 = 100µW MMF only

F = Fiber Type
1 = 9/125 SMF
2 = 50/125 MMF
3 = 62.5/125 MMF
4 = 100/140 MMF
9 = Customer Supplied

RRR = Receptacle Type
FC1 = FC Panel Mount
FC2 = FC Board Mount
SC1 = SC Panel Mount only
SC2 = SC Panel/Board Mount
ST7 = ST low profile
ST8 = ST high profile

O = Orientation
0 = N/A
A = Bracket Shipped Loose

V = Version
0 = Standard
Unique codes for specific requirements

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