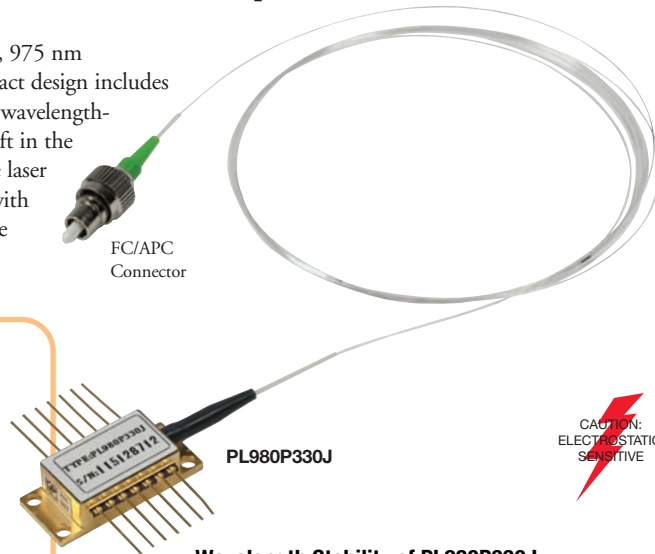


## 975 nm, Fiber-Bragg-Grating-Stabilized Pump Laser

The PL980P330J Pigtailed Laser Diode consists of a field-proven, 975 nm quantum-well laser chip in a 14-pin butterfly package. The compact design includes an integrated thermoelectric cooler, a monitor photodiode, and a wavelength-stabilizing fiber Bragg grating (FBG), which ensures very little drift in the output wavelength as the temperature and current are varied. The laser is coupled into a single mode fiber pigtail (SMF: HI1060 fiber) with an FC/APC connector. This laser diode's patented device structure (F000038US01) is Telecordia GR-468-CORE qualified.



CAUTION:  
ELECTROSTATIC  
SENSITIVE

### Features

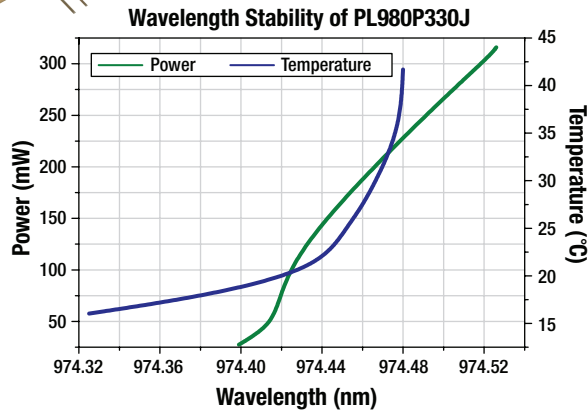
- 330 mW at Fiber Output
- Fiber Bragg Grating Wavelength Stabilized
- Internal Thermoelectric Cooler and Photodiode Monitor
- Compact, Low-Profile 14-Pin Butterfly Package
- SM Fiber with FC/APC Connector
- Patented Device Structure: F000038US01
- Telecordia GR-468-CORE Qualified

### Applications

- Fiber Laser Pump
- Erbium-Doped Fiber Amplifiers (EDFAs)

### Characteristics ( $T_C = 25^\circ\text{C}$ , $P = 330\text{ mW}$ )

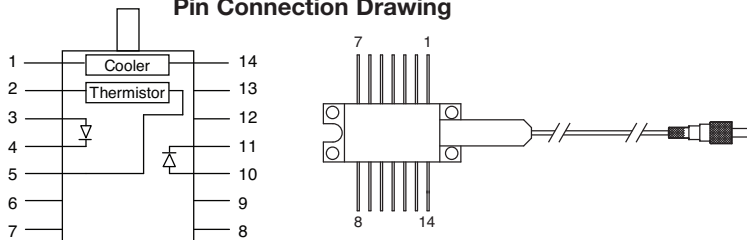
SPECIFICATION	SYMBOL	MIN	TYPICAL	MAX
Center Wavelength	$\lambda_C$	974 nm	975 nm	976 nm
Operating Current	$I_{OP}$	—	600 mA	720 mA
Output Power	$P_{OUT}$	330 mW	—	—
Spectral Bandwidth (FWHM)	$\Delta\lambda$	—	0.5 nm	1.0 nm
Spectral Bandwidth (@ 95% Power)	$\Delta\lambda$	—	—	2.0 nm
Threshold Current	$I_{TH}$	—	75 mA	90 mA
Forward Voltage @ IOP	$V_F$	—	1.7 V	1.9 V
Kink-Free Power	$P_{Kink}$	363 mW	—	—
Spectral Shift with Temperature	$\Delta\lambda/\Delta T$	—	—	0.02 nm / $^\circ\text{C}$
Side Mode Suppression	—	-13 dB	—	—
Monitor Responsivity	$R_{PD}$	1 $\mu\text{A} / \text{mW}$	—	10 $\mu\text{A} / \text{mW}$
<b>TEC Operation</b>				
TEC Current	$I_{TEC}$	—	1.2 A	1.8 A
TEC Voltage	$V_{TEC}$	—	2.0 V	3.0 V
Thermistor Resistance	$R_{TH}$	9.5 k $\Omega$	10 k $\Omega$	10.5 k $\Omega$
Thermistor Constant	B	3600 K	3920 K	4200 K



### Absolute Maximum Ratings

SPECIFICATION	SYMBOL	MIN	MAX
Storage Temperature	$T_S$	-40 $^\circ\text{C}$	85 $^\circ\text{C}$
Operating Temperature	$T_{CASE}$	-20 $^\circ\text{C}$	75 $^\circ\text{C}$
Soldering Temperature*	—	—	250 $^\circ\text{C}$
LD Forward Current	$I_F$	—	800 mA
LD Reverse Voltage	$V_R$	—	2 V
TEC Current	$I_{TEC}$	—	2.5 A
TEC Voltage	$V_{TEC}$	—	3.2 V
Monitor Reverse Voltage	$V_{PD}$	—	10 V
ESD Damage	$V_{ESD}$	—	500 V
Fiber Pigtail Bend Radius	—	25 mm	—

### Pin Connection Drawing



1	Cooler(+)	14	Cooler(-)
2	Thermistor	13	Case Ground
3	PD Anode	12	NC
4	PD Cathode	11	Laser Cathode
5	Thermistor	10	Laser Anode
6	NC	9	NC
7	NC	8	NC

Compatible with LM14S2 Butterfly Mount Using Type 1 Adapter Card (See Page 1482)

ITEM #	\$	£	€	RMB	DESCRIPTION
PL980P330J	\$ 1,648.00	£ 1,186.56	€ 1,433.76	¥ 13,134.56	975 nm, 330 mW FBG-Stabilized Pump Laser, SM Fiber, FC/APC