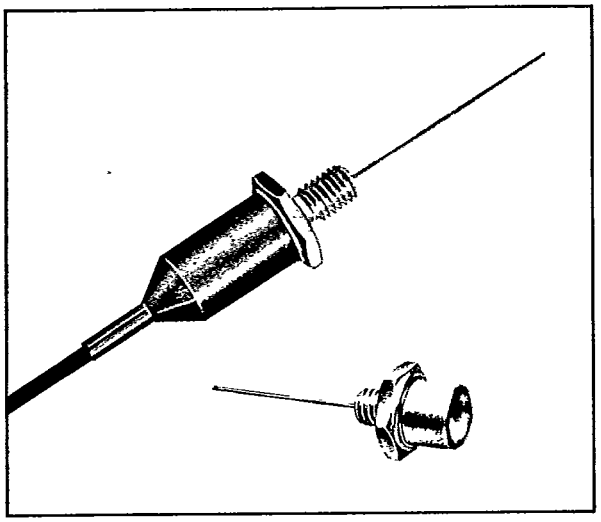
830nm Multi-Mode CW Injection Laser



FEATURES

- CW Operation
- Low Threshold Current
- Low Cost
- Multi-Purpose Laser

DESCRIPTION

The LCW-10 is a multimode CW GaAlAs double heterostructure laser diode. This device features low threshold current and high output power. The diodes are passivated for long life and reliability.

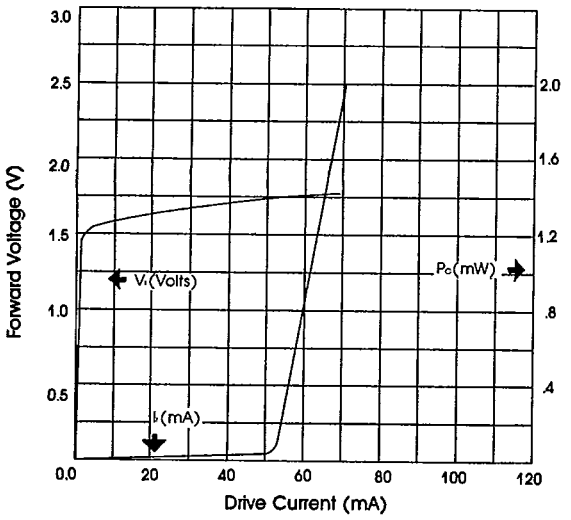
The LCW-10F is the fiber coupled version of the LCW-10 which is available with a 50/125 standard pigtail. Custom fiber pigtails are available upon request. This device is an excellent multipurpose laser and is currently being used in analog and digital data links worldwide.

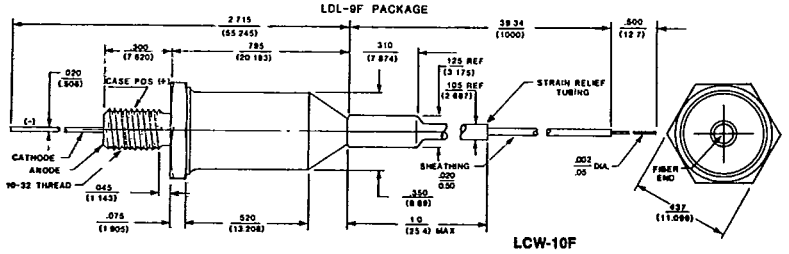
ELECTRO-OPTICAL CHARACTERISTICS AT 25°C

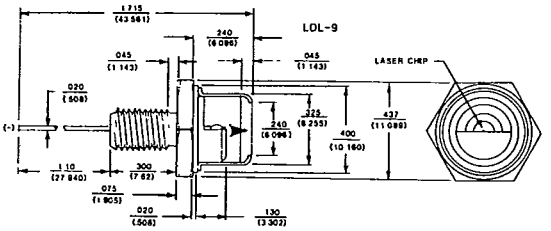
Parameter		Symbol	Min.	Typ.	Max.	Units
Total Radiant Flux	LCW-10	Pom	7.0	10.0		mW
at Rated If	LCW10F*	Pom	2.0	3.0		mW
Peak Wavelength		λp	815	830	845	nm
Spectral Width @50% Pts.		$\Delta\lambda$		2.5		nm
Source Size				0.2x5.0		μm
Rise/Fall Time		Tr		0.5	1.0	ns
Far Field Beam Divergence (LCW-10) @ 50% Pts.		$\theta px\ \theta n$		10x27		degrees
Threshold Current		Ith		40	75	mA
Operating Current		Io		Ith+30	105	mA
Differential Quantum Efficiency				0.35		mW/mA
Forward Voltage at If		Vo		2.0		volts
Operating Temperature		To	-10		50	°C
Storage Temperature		Ts	-40		85	°C

*Standard fiber pigtail is all glass 50μm graded index core 125μm cladding with a 0.20 NA
*Selections to higher operating powers are also available.

Power vs. Current Curve LCW-10F



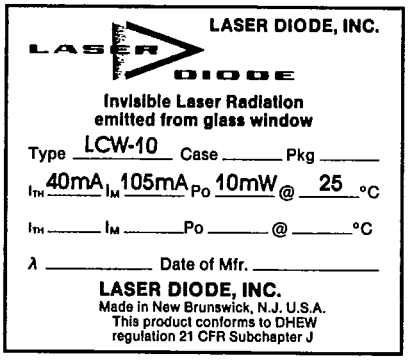




LASER SAFETY

Gallium Arsenide lasers emit infrared radiation which is invisible to the human eye. When in use, safety precautions should be taken to avoid the possibility of eye damage.

Do not stare directly at the device or view an operating laser at close range. If viewing is required, the beam should only be observed by reflection from a matte surface utilizing an image convertor or by use of a suitable fluorescent screen.



CAUTION: **Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.**

LASER DIODE, Inc., reserves the right to make changes at any time as deemed practical and/or necessary to improve the design and to supply the best possible product.

Information provided is believed at this time to be accurate and reliable. No responsibility is assumed for its use, nor for any infringements on the rights of others.

*For further information on this product or others of LASER DIODE, Inc., please call:

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