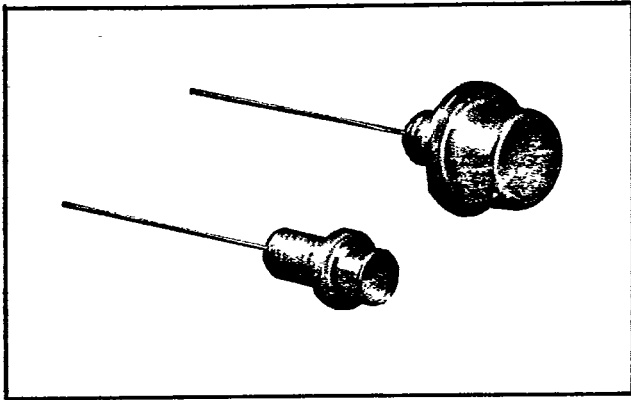


MULTIHETEROSTRUCTURE GaAlAs LASER DIODES FOR PULSED OPERATIONS



FEATURES

- ▶ High Efficiency at Low Drive Currents
- ▶ Up to 90 Watts Peak Power Output
- ▶ 890 Nanometer Peak Wavelength Emission @ 25°C
- ▶ Hermetic Coaxial Package
- ▶ Custom Arrays Available

DESCRIPTION

The MH series devices are designed to have high optical power at elevated temperatures. Typically 50% of room temperature power is retained at 70°C.

CHARACTERISTICS OF A PACKAGED DIODE

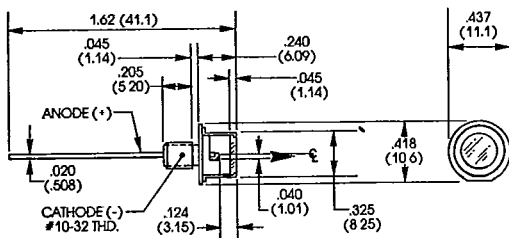
Parameters	Single Diodes				Stacked Arrays			Linear Array	Units
	MH-60	MH-63	MH-65	MH-67	MH-163	MH-166	MH-167	MH-214	
Total Peak Radiant Flux									
@ $T_c=27^\circ\text{C}$, I_{fm} Min.	1	4	6	12	25	50	70	75	Watts
Typ.	2	5	8	15	28	57	80	90	Watts
@ $T_c=70^\circ\text{C}$, I_{fm} Min.	.5	2	3	6	12	25	35	40	Watts
Typ.	1	2.5	4	8	15	30	40	45	Watts
Number of Diodes	1	1	1	1	3	4	5	12	
Emitting Area	3x.08	6x.08	9x.08	16x.08	9x8	12x12	16x16	156x.08	Mils
Maximum Peak Forward Current I_{fm}	8	20	30	50	30	40	50	30	Amps
Typical Threshold Current I_{th}	2	5	8	12	7	10	13	8	Amps
Typical Peak Forward Voltage	6	6.5	8	15	17	25	32	75	Volts
Duty Factor @ I_{fm} 27°C	0.2	0.2	0.2	0.2	.08	.04	.03	.08	%
Package	0119	0119	0119	0119	0114	0114	0114	0114	

ELECTRO-OPTICAL CHARACTERISTICS

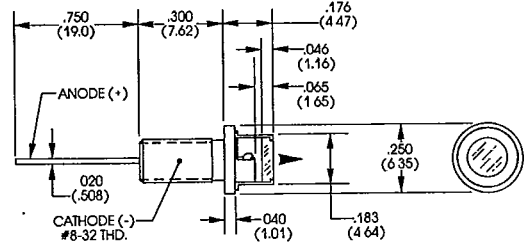
Parameters	Symbol	Min.	Typ.	Max.	Units
Wavelength of Peak Intensity	λ	880	890	900	nm
Spectral Width @ 50% Pts.	$\Delta\lambda$		4.5		nm
Rise Time of Radiant Flux -10%-90% Pts.	T_r		1		ns
Pulse Width - 50% Pts. @ I_{fm}	T_p			80	ns
Storage Temperature	T_s	-196		+150	°C
Operating Temperature	T_c	-196*		+ 75	°C

*Operation at temperatures less than 27°C requires current derating. Optical power should not exceed the value at 27°C.

PACKAGE SPECIFICATIONS

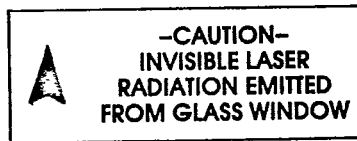


600-0114



600-0119

NOTE
1. Dimensions in inches,
mm in parenthesis.



LASER SAFETY

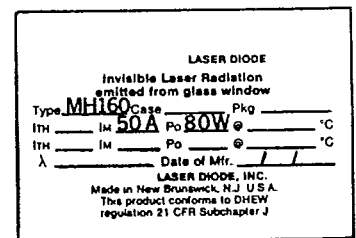
Gallium arsenide lasers emit infrared radiation which is invisible to the human eye. When in use, safety precautions should be taken to avoid the possibility of eye damage.

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.

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;



LASER DIODE, INC.
MORGAN ELECTRONICS DIVISION
1130 SOMERSET ST., NEW BRUNSWICK, NJ 08901
(201) 249-7000 (FAX) 201-249-9165 (TWX) 710-998-0597