

US-Lasers: 780nm-5mW - Infrared Laser Diode and Infrared Diode Laser Module

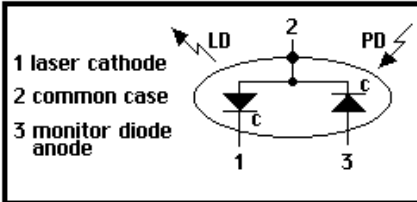
Links to Laser Diode & Laser Module Configurations and Specifications >>>>>>>>>

- [Laser Diode](#) [Laser Diode Module](#) [Micro Laser Module](#) [Variable Output Laser Diode Module](#)
[N780-5](#) [NM780-5](#) [MM780-5](#)

Barrel Specs: <ul style="list-style-type: none"> 2 Pieces 12 - 56 Thread Size Dia: 6.4mm Length: 17mm 	Weight & Wire Lengths: <ul style="list-style-type: none"> Module with 6" wire leads - 49 grain wt.b Module without 6" wire leads - 42 grain wt Module with spring leads - 42 1/2 grain wt. Spring 2.4mm dia. 4mm long (trimmable) 	Lens Housing Specs: <ul style="list-style-type: none"> 12 - 56 Thread Size 3.0mm Aperture 4.0mm Plastic Lens
--	--	--

INFRARED DIODE LASER DATA SHEET

ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)

TECHNICAL DATA for LASER DIODE <ul style="list-style-type: none"> Index Guided MQW Structure Wavelength: 780nm (Typ.) Optical Power: 5mW CW Threshold Current: 25mA (Typ.) Standard Package: 5.6mm 	 <p>Pin Out Diagram - Style A</p>								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Infrared light output</td> <td style="width: 25%;">780nm</td> </tr> <tr> <td>Optical power output</td> <td>5mW CW</td> </tr> <tr> <td>Package Type</td> <td>5.6mm</td> </tr> <tr> <td colspan="2">Built-in photo diode for monitoring laser output</td> </tr> </table>	Infrared light output	780nm	Optical power output	5mW CW	Package Type	5.6mm	Built-in photo diode for monitoring laser output		
Infrared light output	780nm								
Optical power output	5mW CW								
Package Type	5.6mm								
Built-in photo diode for monitoring laser output									

Items	Symbols	Values	Unit
Optical output power	Po	5	mW
Laser diode reverse voltage	VLDR	2	V
Photo diode reverse voltage	VPDR	30	V
Operating temperature	Topr	-10 ~ +40	°C
Storage temperature	Tstg	-40 ~ +85	°C

OPTICAL and ELECTRICAL CHARACTERISTICS - (Tc=25 °C)

Items	Symbols	Min.	Typ.	Max.	Unit	Test Condition
Optical output power	Po	-	5	-	mW	-
Threshold current	Ith	15	25	40	mA	-
Operating current	Iop	25	35	50	mA	Po=5mW
Operating voltage	Vop	1.9	2.1	2.5	V	Po=5mW
Lasing wavelength	λ D	770	780	790	nm	Po=5mW
Beam divergence	θ F	8	11	15	deg	Po=5mW
Beam divergence	θ z	20	35	45	deg	Po=5mW
Slope Efficiency (mW/mA)	η	0.1	0.3	0.6		-
Monitor current	Im	100	200	600	μ A	Po=5mW, Vr=5V
Astigmatism	As	-	11	-	μ m	Po=5mW
MTTF			3000-5,000 hrs.			Po=5mW, NA=0.4
Emitter Size		1 x 4 Microns				
Emitter Distance to Cap Lens Structure		0.3mm				
		Index Guided				