

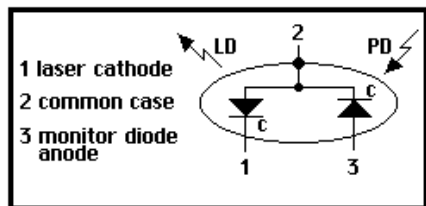
US-Lasers: 780nm-10mW - Infrared Laser Diode and Infrared Diode Laser Module

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TECHNICAL DATA for LASER MODULE		
Barrel Specs: • 3/8 - 56 Thread Size • Dia: 10.4mm • Length: 17mm	Collect Specs: • 3/8 - 56 Thread Size • 4.3mm Aperature • Half Hard Brassbbb	Lens Housing Specs: • 3/8 - 56 Thread Size • 3.7mm Aperture • 7mm Plastic Lens

INFRARED DIODE LASER DATA SHEETS

ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)

TECHNICAL DATA for LASER DIODE • Index Guided MQW Structure • Wavelength: 780nm (Typ.) • Optical Power: 10mW CW • Threshold Current: 45mA (Typ.) • Standard Package: 9mm		
Infrared light output	780nm	
Optical power output	10mW CW	
Package Type	9mm	
Built-in photo diode for monitoring laser output		

Items	Symbols	Values	Unit
Optical output power	Po	10	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	-	10	-	mW	-
Threshold current	Ith	15	25	40	mA	-
Operating current	Iop	30	40	60	mA	Po=10mW
Operating voltage	Vop	2.0	2.4	2.7	V	Po=10mW
Lasing wavelength	λ D	770	780	790	nm	Po=10mW
Beam divergence	θ F	8	10	11	deg	Po=10mW
Beam divergence	θ z	25	31	40	deg	Po=10mW
Slope Efficiency (mW/mA)	η	0.4	0.5	0.7		-
Monitor current	Im	10	30	90	μ A	Po=10mW, Vr=5V
Astigmatism	As	-	11	-	μ m	Po=10mW
MTTF			3000-5,000 hrs.			Po=10mW, NA=0.4
Emitter Size	1 x 40 Microns					
Emitter Distance to Cap Lens	0.3mm					
Structure	Index Guided					