

US-Lasers: 850nm-5mW - Infrared Laser Diode and Infrared Diode Laser Module

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

[Laser Diode](#)

[Laser Diode Module](#)

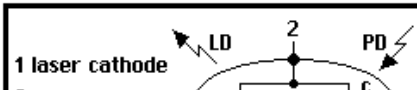
[Micro Laser Module](#)

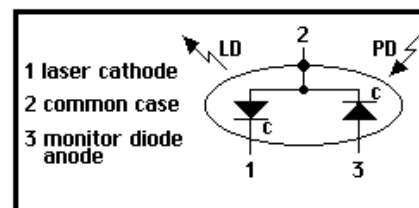
[Variable Output
Laser Diode Module](#)

MM850-5

Barrel Specs:	Weight & Wire Lengths:	Lens Housing Specs:
• 2 Pieces • 12 - 56 Thread Size • Dia: 6.4mm • Length: 17mm	• 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)	• 12 - 56 Thread Size • 3.0mm Aperture • 4.0mm Plastic Lens

INFRARED DIODE LASER ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)

TECHNICAL DATA for LASER DIODE • Index Guided MQW Structure • Wavelength: 850nm (Typ.) • Optical Power: 5mW CW • Threshold Current: 20mA (Typ.) • Standard Package: 5.6mm		 1 laser cathode 2 common case 3 monitor diode anode Pin Out Diagram - Style A
Infrared light output	850nm	
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	10	20	35	mA	-
Operating current	Iop	15	25	45	mA	Po=5mW
Operating voltage	Vop	2.0	2.4	2.7	V	Po=5mW
Lasing wavelength	λ D	840	850	860	nm	Po=5mW
Beam divergence	θ F	8	10	11	deg	Po=5mW
Beam divergence	θ z	25	31	40	deg	Po=5mW
Slope Efficiency (mW/mA)	0	0.4	0.5	0.7	-	-
Monitor current	Im	10	100	200	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	0.3mm					
Structure	Index Guided					