

US-Lasers: 808nm-5mW - Infrared Laser Diode

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INFRARED DIODE LASER DATA SHEETS

ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)

TECHNICAL DATA for LASER DIODE <ul style="list-style-type: none"> • Index Guided MQW Structure • Wavelength: 808nm (Typ.) • Optical Power: 5mW CW • Threshold Current: 25mA (Typ.) • Standard Package: 5.6mm 		<p>1 laser cathode 2 common case 3 monitor diode anode</p>
Infrared light output	808nm	
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	1.9	2.1	2.5	V	Po=5mW
Lasing wavelength	λ D	800	808	820	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)	0	0.1	0.3	0.6	-	-
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					