

US-Lasers: 904nm-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: 904nm (Typ.) • Optical Power: 5mW CW • Threshold Current: 20mA (Typ.) • Standard Package: 5.6mm 		
Infrared light output	904nm	
Optical power output	5mW CW	
Package Type	5.6mm	
Built-in photo diode for monitoring laser output		

Pin Out Diagram - Style A

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	894	904	914	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)	η	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				