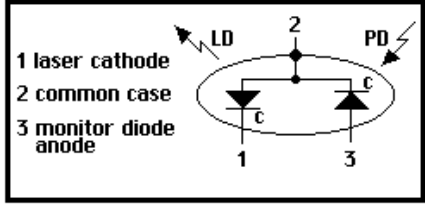


## US-Lasers: 635nm-5mW - Red Laser Diode

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### VISIBLE LASER DIODE DATA SHEET

ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)

<b>TECHNICAL DATA for LASER DIODE</b> <ul style="list-style-type: none"> <li>Index Guided MQW Structure</li> <li>Wavelength: 635nm (Typ.)</li> <li>Optical Power: 5mW CW</li> <li>Threshold Current: 40mA (Typ.)</li> <li>Standard Package: 5.6mm</li> </ul>		
Visible laser diode light output	635nm	<b>Pin Out Diagram - Style A</b>
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	30	40	60	mA	-
Operating current	Iop	40	50	70	mA	Po=5mW
Operating voltage	Vop	2.0	2.4	2.7	V	Po=5mW
Lasing wavelength	λ D	630	635	645	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	50	90	μ A	Po=5mW, Vr=5V
Astigmatism	As	-	11	-	μ m	Po=5mW
MTTF			3000-5,000 hrs.			Po=5mW, NA=0.4
Emitter Distance to Cap Lens		0.3mm				
Emitter Size		1 x 4 Microns				
Structure		Index Guided				