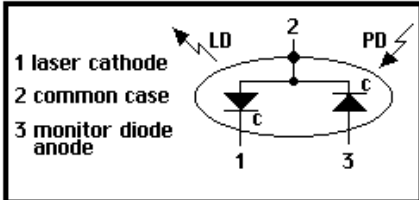


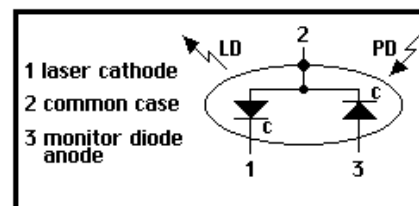
US-Lasers: 635nm-5mW - Red Laser Diode

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VISIBLE LASER DIODE DATA SHEET

ABSOLUTE MAXIMUM RATINGS - (T_c=25 °C)

TECHNICAL DATA for LASER DIODE ● Index Guided MQW Structure ● Wavelength: 635nm (Typ.) ● Optical Power: 5mW CW ● Threshold Current: 40mA (Typ.) ● Standard Package: 5.6mm		 1 laser cathode 2 common case 3 monitor diode anode LD PD c c Pin Out Diagram - Style A
Visible laser diode light output	635nm	
Optical power output	5mW CW	
Package Type	5.6mm	
Built-in photo diode for monitoring laser output		



Items	Symbols	Values	Unit
Optical output power	P _o	5	mW
Laser diode reverse voltage	VLDR	2	V
Photo diode reverse voltage	VPDR	30	V
Operating temperature	T _{opr}	-10 ~ +40	°C
Storage temperature	T _{stg}	-40 ~ +85	°C

OPTICAL and ELECTRICAL CHARACTERISTICS - (T _c =25 °C)							
Items	Symbols	Min.	Typ.	Max.	Unit	Test Condition	
Optical output power	P _o	-	5	-	mW	-	-
Threshold current	I _{th}	30	40	60	mA	-	-
Operating current	I _{op}	40	50	70	mA	P _o =5mW	-
Operating voltage	V _{op}	2.0	2.4	2.7	V	P _o =5mW	-
Lasing wavelength	λ D	630	635	645	nm	P _o =5mW	-
Beam divergence	θ F	8	10	11	deg	P _o =5mW	-
Beam divergence	θ z	25	31	40	deg	P _o =5mW	-
Slope Efficiency (mW/mA)	η	0.4	0.5	0.7	-	-	-
Monitor current	I _m	10	50	90	μ A	P _o =5mW, V _r =5V	-
Astigmatism	As	-	11	-	μ m	P _o =5mW	-
MTTF			3000-5,000 hrs.			P _o =5mW, NA=0.4	-
Emitter Distance to Cap Lens		0.3mm					-
Emitter Size		1 x 4 Microns					-
Structure		Index Guided					-