

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

**Links to Laser Diode & Laser Module Configurations and Specifications**  
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DATA SHEETS .... MM635nm 5mW ....RED LASER MODULE		
<b>Barrel Specs:</b> <ul style="list-style-type: none"> <li>2 Pieces</li> <li>12 - 56 Thread Size</li> <li>Dia: 6.4mm</li> <li>Length: 17mm</li> </ul>	<b>Weight &amp; Wire Lengths:</b> <ul style="list-style-type: none"> <li>Module with 6" wire leads - 49 grain wt.b</li> <li>Module without 6" wire leads - 42 grain wt</li> <li>Module with spring leads - 42 1/2 grain wt.</li> <li>Spring 2.4mm dia. 4mm long (trimmable)</li> </ul>	<b>Lens Housing Specs:</b> <ul style="list-style-type: none"> <li>12 - 56 Thread Size</li> <li>3.0mm Aperture</li> <li>4.0mm Plastic Lens</li> </ul>

## RED LASER DIODE DATA SHEET

ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)

<b>TECHNICAL DATA</b> Visible laser diode light output                      635nm Optical power output    5mW CW Package Type    5.6mm Built-in photo diode for monitoring laser output	<p><b>Pin Out Diagram</b></p>
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Items	Symbols	Values	Unit
Optical output power	Po	5	mW
Laser diode reverse voltage	V	2	V
Photo diode reverse voltage	V	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	Kink free
Threshold current	I <sub>th</sub>	30	35	45	mA	Po=5mW
Operating current	I <sub>op</sub>	-	45	70	mA	Po=5mW
Operating voltage	V <sub>op</sub>	-	-	2.5	V	Po=5mW
Lasing wavelength		630	635	645	nm	Po=5mW
Beam divergence		5	8	11	deg	Po=5mW

Beam divergence		25	31	37	deg	$P_o=5mW$
Off Axis Angle		-	-	+/-3	deg	
Off Axis Angle		-	-	+/-3	deg	
Monitor current	$I_m$	-	35	-	uA	$P_o=5mW, V_R=5V$
Astigmatism	$A_s$	-	11	-	um	$P_o=5mW, NA=0.4$
MTTF				3-5,000 hrs.		$P_o=5mW$
Emitter Size		10 x 60 Microns - Emitter Distance to Cap Lens = 0.3mm				
Structure		IIIGaInP MQW				