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[US-Lasers, Inc.](#)  
[M850-30](#)

For any questions, you can email us directly:  
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## US-Lasers: 850nm-30mW - Infrared Laser Diode and Infrared Diode Laser Module

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TECHNICAL DATA for LASER MODULE		
<b>Barrel Specs:</b> <ul style="list-style-type: none"> <li>• 3/8 - 56 Thread Size</li> <li>• Dia: 10.4mm</li> <li>• Length: 17mm</li> </ul>	<b>Collect Specs:</b> <ul style="list-style-type: none"> <li>• 3/8 - 56 Thread Size</li> <li>• 4.3mm Aperature</li> <li>• Half Hard Brassbbb</li> </ul>	<b>Lens Housing Specs:</b> <ul style="list-style-type: none"> <li>• 3/8 - 56 Thread Size</li> <li>• 3.7mm Aperture</li> <li>• 7mm Plastic Lens</li> </ul>

### IR LASER DIODE DATA SHEET

ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)

<b>TECHNICAL DATA</b> IR light output                      850nm Optical power output                30mW 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	30	mW
Laser diode reverse voltage	V	2	V
Photo diode reverse voltage	V	30	V
Operating temperature	Topr	-10 ~ +50	°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	-	30	-	mW	-
Threshold current	Ith	30	50	70	mA	Po=30mW
Operating current	Iop	60	80	100	mA	Po=30mW
Operating voltage	Vop	2.0	2.2	2.7	V	Po=30mW
Lasing wavelength	ep	830	850	870	nm	Po=30mW
Beam divergence		8	10	11	deg	Po=30mW
Beam divergence		25	31	40	deg	Po=30mW
Monitor current	Im	100	300	500	uA	Po=30mW
Astigmatism	As	-	11	-	um	Po=30mW
Slope Efficiency (mW/mA)		0.3	0.4	0.7		Po=30mW
MTTF			10000 hrs.			Po=30mW
Emitter Size	10 x 60 Microns - Emitter Distance to Cap Lens = 0.3mm					
Structure	Index Guided					

