

US-Lasers: 640nm-5mW - Red Laser Diode and Red Diode Laser Module

Links to Laser Diode & Laser Module Configurations and Specifications
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MM640-5

| DATA SHEETS MM640nm 5mWRED LASER MODULE & DIODE | | |
|--|--|--|
| Barrel Specs: <ul style="list-style-type: none"> • 2 Pieces • 12 - 56 Thread Size • Dia: 6.4mm • Length: 17mm | Weight & Wire Lengths: <ul style="list-style-type: none"> • Module with 6" wire leads - 49 grain wt.b • Module without 6" wire leads - 42 grain wt • Module with spring leads - 42 1/2 grain wt. • Spring 2.4mm dia. 4mm long (trimmable) | Lens Housing Specs: <ul style="list-style-type: none"> • 12 - 56 Thread Size • 3.0mm Aperture • 4.0mm Plastic Lens |

RED LASER DIODE DATA SHEET

ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)

C)

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|---|-------------------------------|
| TECHNICAL DATA Visible laser diode light output 640nm Optical power output 5mW CW Package Type 5.6mm Built-in photo diode for monitoring laser output | <p>Pin Out Diagram</p> |
|---|-------------------------------|

| 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 ~ +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 | - | 5 | - | mW | - |
| Threshold current | Ith | - | 30 | 65 | mA | - |
| Operating current | Iop | - | 55 | 75 | mA | Po=5mW |
| Operating voltage | Vop | - | 2.7 | - | V | Po=5mW |
| Lasing wavelength | | 635 | 640 | 645 | nm | Po=5mW |
| Beam divergence | | - | 5 | 11 | deg | Po=5mW |
| Beam divergence | | - | 25 | 37 | deg | Po=5mW |

| | | | | | | |
|---------------------------|--|---|----|-----------------|----|--------|
| Monitor current | Im | - | 10 | 20 | uA | Po=5mW |
| Astigmatism | As | - | 11 | - | um | Po=5mW |
| MTTF | | | | 3-5,000 hrs. | | Po=5mW |
| Emitter Size Structure | 10 x 60 Microns - Emitter Distance to Cap Lens = 0.3mm Index Guided | | | | | |