

**FEATURES**

- Super high power output
- 880nm peak emission
- Three chips connected in series
- TO-66 header for good heat dissipation
- 100% tested for power output
- Electrically isolated case

All surfaces are gold plated. Dimensions are nominal values in inches unless otherwise specified.

**ELECTRO-OPTICAL CHARACTERISTICS AT 25°C**

| PARAMETERS                                | TEST CONDITIONS                               | MIN | TYP         | MAX | UNITS |
|---|---|-----|-------------|-----|-------|
| Total Power Output, P <sub>o</sub>        | I <sub>F</sub> = 300mA<br>I <sub>F</sub> = 8A | 150 | 170<br>3500 |     | mW    |
| Peak Emission Wavelength, λ <sub>p</sub>  | I <sub>F</sub> = 50mA                         |     | 880         |     | nm    |
| Spectral Bandwidth at 50%, Δλ             |   |     | 80          |     | nm    |
| Half Intensity Beam Angle, θ              |   |     |             | 120 |       |
| Forward Voltage, V <sub>F</sub>           | I <sub>F</sub> = 300mA                        |     | 4.5         | 5   | Volts |
| Reverse Breakdown Voltage, V <sub>R</sub> | I <sub>R</sub> = 10μA                         | 5   | 30          |     | Volts |
| Capacitance, C                            | V <sub>R</sub> = 0V                           |     | 30          |     | pF    |
| Rise Time                                 |   |     | 1           |     | μsec  |
| Fall Time                                 |   |     | 1           |     | μsec  |

**ABSOLUTE MAXIMUM RATINGS AT 25°C CASE**

|  |       |
|--|-------|
| Power Dissipation <sup>1</sup>                         | 2W    |
| Continuous Forward Current                             | 400mA |
| Peak Forward Current (10μs, 400Hz) <sup>2</sup>        | 8A    |
| Reverse Voltage  | 5V    |
| Lead Soldering Temperature (1/16" from case for 10sec) | 260°C |

<sup>1</sup>Derate per Thermal Derating Curve above 25°C

<sup>2</sup>Derate linearly above 25°C

**THERMAL PARAMETERS**

|  |                |
|--|----------------|
| Storage and Operating Temperature Range            | -55°C to 100°C |
| Maximum Junction Temperature                       | 100°C          |
| Thermal Resistance, R <sub>THJA</sub> <sup>1</sup> | 60°C/W Typical |
| Thermal Resistance, R <sub>THJA</sub> <sup>2</sup> | 16°C/W Typical |

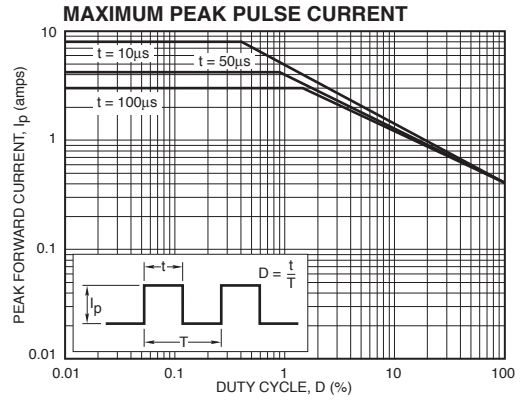
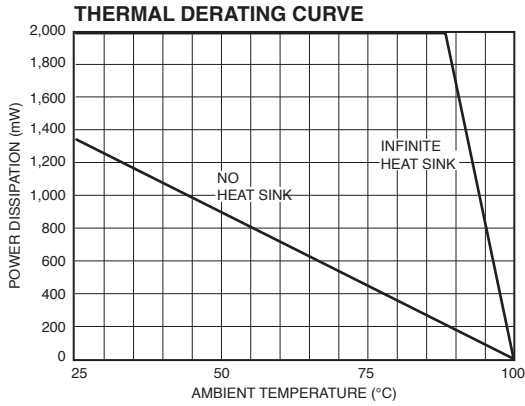
<sup>1</sup>Heat transfer minimized by measuring in still air with minimum heat conducting through leads

<sup>2</sup>Air circulating at a rapid rate to keep case temperature at 25°C



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MAXIMUM RATINGS



TYPICAL CHARACTERISTICS

