

## FEATURES

- High reliability LPE grown GaAlAs
- High power output
- Fast response
- Wide range of linear power output
- Custom packages available
- Custom spectral emission from 780-870nm available

All surfaces are gold plated. Dimensions are nominal values in inches unless otherwise specified. Window caps are welded to the case.



## ELECTRO-OPTICAL CHARACTERISTICS AT 25°C

| PARAMETERS                                 | TEST CONDITIONS       | MIN | TYP | MAX | UNITS |
|--|-----------------------|-----|-----|-----|-------|
| Total Power Output, $P_o$                  | $I_F = 100\text{mA}$  | 4   | 5   |     | mW    |
| Peak Emission Wavelength, $\lambda_p$      | $I_F = 50\text{mA}$   |     | 870 |     | nm    |
| Spectral Bandwidth at 50%, $\Delta\lambda$ |                       |     | 50  |     | nm    |
| Half Intensity Beam Angle, $\theta$        |                       |     |     | 35  |       |
| Forward Voltage, $V_F$                     | $I_F = 100\text{mA}$  |     | 1.5 | 1.8 | Volts |
| Reverse Breakdown Voltage, $V_R$           | $I_R = 10\mu\text{A}$ | 2   | 5   |     | Volts |
| Capacitance, C                             | $V_R = 0\text{V}$     |     | 150 |     | pF    |
| Rise Time                                  |                       |     | 15  |     | nsec  |
| Fall Time                                  |                       |     | 15  |     | nsec  |

## ABSOLUTE MAXIMUM RATINGS AT 25°C CASE

|  |       |
|--|-------|
| Power Dissipation <sup>1</sup>                               | 180mW |
| Continuous Forward Current                                   | 100mA |
| Peak Forward Current (10 $\mu\text{s}$ , 200Hz) <sup>2</sup> | 3A    |
| Reverse Voltage  | 2V    |
| 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, $R_{THJA}$ <sup>1</sup> | 400°C/W Typical |
| Thermal Resistance, $R_{THJA}$ <sup>2</sup> | 135°C/W Typical |

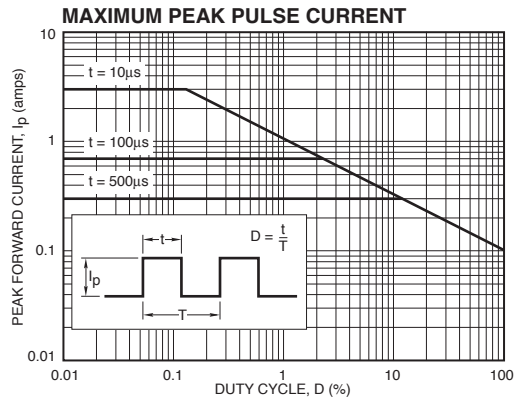
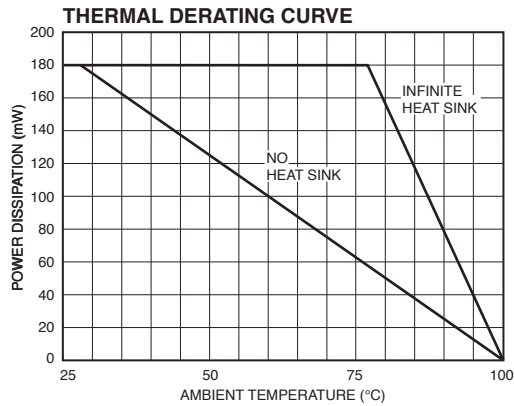
<sup>1</sup>Heat transfer minimized by measuring in still air with minimum heat conducting through leads

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



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MAXIMUM RATINGS



TYPICAL CHARACTERISTICS

