

FEATURES

- High reliability liquid-phase epitaxially grown GaAlAs
- 880nm peak emission for optimum matching with ODD-45W photodiode
- Wide range of linear power output
- Hermetically sealed TO-46 package
- Wide emission angle to cover a large area

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 | $I_F = 100\text{mA}$ | 18 | 20 | | mW |
| Radiant Intensity, I_e | | | 16 | | mW/sr |
| Peak Emission Wavelength, λ_p | $I_F = 50\text{mA}$ | | 880 | | nm |
| Spectral Bandwidth at 50%, $\Delta\lambda$ | | | 80 | | nm |
| Half Intensity Beam Angle, θ | | | 80 | | Deg |
| Forward Voltage, V_F | $I_F = 100\text{mA}$ | | 1.55 | 1.9 | Volts |
| Reverse Breakdown Voltage, V_R | $I_R = 10\mu\text{A}$ | 5 | 30 | | Volts |
| Capacitance, C | $V_R = 0\text{V}$ | | 17 | | pF |
| Rise Time | | | 0.5 | | μsec |
| Fall Time | | | 0.5 | | μsec |

ABSOLUTE MAXIMUM RATINGS AT 25°C CASE

| | |
|--|-------|
| Power Dissipation ¹ | 190mW |
| Continuous Forward Current | 100mA |
| Peak Forward Current (10 μs , 400Hz) ² | 3A |
| Reverse Voltage | 5V |
| Lead Soldering Temperature (1/16" from case for 10sec) | 260°C |

¹Derate per Thermal Derating Curve above 25°C

²Derate linearly above 25°C

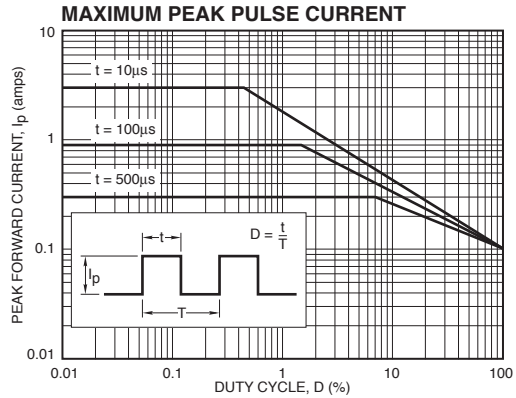
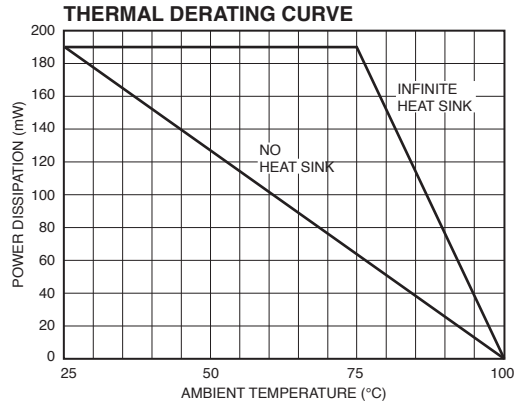
THERMAL PARAMETERS

| | |
|---|-----------------|
| Storage and Operating Temperature Range | -55°C TO 100°C |
| Maximum Junction Temperature | 100°C |
| Thermal Resistance, R_{THJA} ¹ | 400°C/W Typical |
| Thermal Resistance, R_{THJA} ² | 135°C/W Typical |

¹Heat transfer minimized by measuring in still air with minimum heat conducting through leads

²Air circulating at a rapid rate to keep case temperature at 25°C

MAXIMUM RATINGS



TYPICAL CHARACTERISTICS

