

FEATURES

- High output power
- High reliability
- Narrow emission angle

DESCRIPTION

The **PDI-E809** is a high power 880 nm GaAlAs emitter, packaged in a low cost T 1¼ plastic package.

APPLICATIONS

- Photoelectric switches
- Infrared sources
- Optical readers

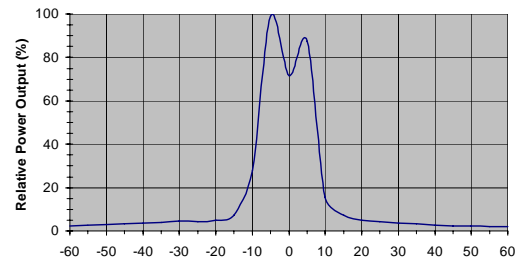


ABSOLUTE MAXIMUM RATING (TA)= 23°C UNLESS OTHERWISE NOTED

| SYMBOL | PARAMETER | MIN | MAX | UNITS |
|------------------|----------------------------|-----|------|-------|
| P _d | Power Dissipation | | 200 | mW |
| I _f | Continuous Forward Current | | 100 | mA |
| I _p | Peak Forward Current | | 1 | A |
| V _r | Reverse Voltage | | 5 | V |
| T _{STG} | Storage Temperature | -25 | +100 | °C |
| T _O | Operating Temperature | -25 | +100 | °C |
| T _s | Soldering Temperature* | | +240 | °C |

* 1/16 inch from case for 3 seconds max.

RADIATION PATTERN



ELECTRO-OPTICAL CHARACTERISTICS RATING (TA)= 23°C UNLESS OTHERWISE NOTED

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|----------------|---------------------------------|-------------------------------|-----|-----|-----|-------|
| P _o | Radiant Intensity | I _f = 50 mA | 50 | 90 | | mW/Sr |
| V _f | Forward Voltage | I _f = 100 mA | | 1.6 | 2.0 | V |
| V _r | Reverse Breakdown Voltage | I _f = 100 µA | 5 | 30 | | V |
| λ _p | Peak Wavelength | I _f = 50 mA | | 880 | | nm |
| Δλ | Spectral Bandwidth @ 50% (FWHM) | I _f = 50 mA | | 70 | | nm |
| C _t | Terminal Capacitance | V _r = 0V, f = 1MHz | | 20 | | pF |
| t _r | Rise Time | I _f = 20 mA | | 1.5 | | µS |
| t _f | Fall Time | I _f = 20 mA | | 0.8 | | µS |

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