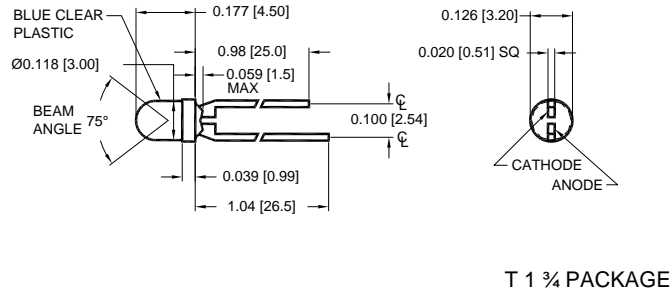


PACKAGE DIMENSIONS INCH [mm]



## FEATURES

- High output power
- High reliability
- Medium emission angle

## DESCRIPTION

The **PDI-E808-A** is a high power GaAlAs infrared emitter, packaged in a low cost T 1 3/4 plastic package.

## APPLICATIONS

- Photoelectric switches
- Infrared sources
- Automatic controls

## 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        | -65 | +125 | °C    |
| $T_O$     | Operating Temperature      | -65 | +125 | °C    |
| $T_s$     | Soldering Temperature*     |     | +240 | °C    |

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

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

| SYMBOL          | CHARACTERISTIC            | TEST CONDITIONS          | MIN | TYP | MAX | UNITS   |
|-----------------|---------------------------|--------------------------|-----|-----|-----|---------|
| $P_o$           | Radiant Intensity         | $I_f = 100$ mA           | 12  |     | 30  | mW/Sr   |
| $V_f$           | Forward Voltage           | $I_f = 100$ mA           |     | 1.5 | 2.0 | V       |
| $V_r$           | Reverse Breakdown Voltage | $I_f = 100$ $\mu$ A      | 5   | 30  |     | V       |
| $\lambda_p$     | Peak Wavelength           | $I_f = 50$ mA            |     | 880 |     | nm      |
| $\Delta\lambda$ | Spectral Halfwidth        | $I_f = 50$ mA            |     | 70  |     | nm      |
| $C_t$           | Terminal Capacitance      | $V_r = 0V$ , $f = 1$ MHz |     | 20  |     | pF      |
| $I_R$           | Reverse Current           | $V_r = 4V$               |     | 10  |     | $\mu$ A |
| $t_r$           | Rise Time                 | $I_f = 20$ mA            |     | 1.5 |     | $\mu$ S |
| $t_f$           | Fall Time                 | $I_f = 20$ mA            |     | 0.8 |     | $\mu$ S |

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.