

FEATURES

- Low Cost
- 660 nm +/- 3nm
- 2 drive line

DESCRIPTION

The **PDI-E838** is a two drive line dual emitter oximeter component. The 660 and 880 nm GaAlAs infrared emitters are mounted in a glob topped low cost ceramic SMT package. The LEDs are bias separately by alternating polarity on the bias pins.

APPLICATIONS

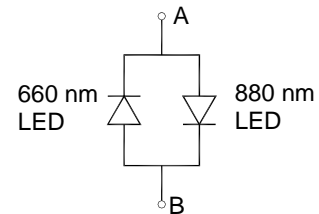
- Oximeter Probes
- Finger Clamps
- Reusable probes

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

| SYMBOL | PARAMETER | MIN | MAX | UNITS |
|------------------|----------------------------|-----|------|-------|
| P _d | Power Dissipation | | 250 | mW |
| I _f | Continuous Forward Current | | 30 | mA |
| I _p | Peak Forward Current | | 200 | mA |
| V _r | Reverse Voltage | | 4 | V |
| T _{STG} | Storage Temperature | -40 | +80 | °C |
| T _O | Operating Temperature | -40 | +80 | °C |
| T _s | Soldering Temperature* | | +240 | °C |

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

SCHEMATIC



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

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | 660 nm | | | 880 nm | | | UNITS |
|----------------|---------------------------|------------------------|--------|------|-----|--------|-----|-----|-------|
| | | | MIN | TYP | MAX | MIN | TYP | MAX | |
| P _o | Radiant Flux | I _f = 20 mA | 1.8 | 2.4 | | 1.2 | 1.8 | | mW |
| I _v | Luminous Intensity | I _f = 20 mA | 20 | 30 | | | | | mcd |
| V _f | Forward Voltage | I _f = 20 mA | | 1.8 | 2.4 | | 1.2 | 1.7 | V |
| V _r | Reverse Breakdown Voltage | I _f = 10 μA | 5 | | | 5 | | | V |
| λ _p | Peak Wavelength | I _f = 20 mA | 658 | 661 | 664 | 870 | 880 | 890 | nm |
| Δλ | Spectral Halfwidth | I _f = 20 mA | | 21 | | | 50 | | nm |
| t _r | Rise Time | I _f = 20 mA | | 0.1 | | | 0.8 | | uS |
| t _f | Fall Time | I _f = 20 mA | | 0.04 | | | 0.8 | | uS |

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.