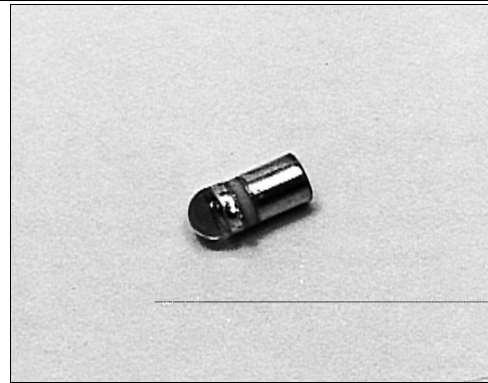


# SE2460

## GaAs Infrared Emitting Diode

### FEATURES

- Miniature, hermetically sealed, pill style, metal can package
- 18° (nominal) beam angle
- Wide operating temperature range (- 55°C to +125°C)
- Ideal for direct mounting to printed circuit boards
- 935 nm wavelength
- Mechanically and spectrally matched to SD2420 photodiode, SD2440 phototransistor and SD2410 photodarlington



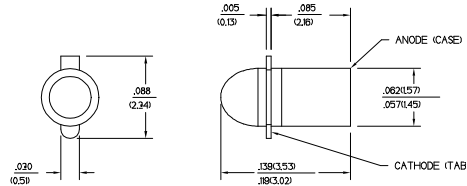
INFRA-1.TIF

### DESCRIPTION

The SE2460 is a gallium arsenide infrared emitting diode mounted in a hermetically sealed, glass lensed, metal can package. This package directly mounts in double sided PC boards.

### OUTLINE DIMENSIONS in inches (mm)

Tolerance 3 plc decimals ±0.005(0.12)  
2 plc decimals ±0.020(0.51)



DIM\_002.ds4

# SE2460

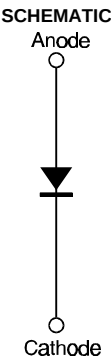
## GaAs Infrared Emitting Diode

| ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)     |                                 |                      |     |     |       |                          |
|--------------------------------------------------------------|---------------------------------|----------------------|-----|-----|-------|--------------------------|
| PARAMETER                                                    | SYMBOL                          | MIN                  | TYP | MAX | UNITS | TEST CONDITIONS          |
| Total Power Output<br>SE2460-001<br>SE2460-002<br>SE2460-003 | P <sub>O</sub>                  | 0.27<br>0.40<br>1.00 |     |     | mW    | I <sub>F</sub> =50 mA    |
| Forward Voltage                                              | V <sub>F</sub>                  |                      |     | 1.6 | V     | I <sub>F</sub> =50 mA    |
| Reverse Breakdown Voltage                                    | V <sub>BR</sub>                 | 3.0                  |     |     | V     | I <sub>R</sub> =10 µA    |
| Peak Output Wavelength                                       | λ <sub>p</sub>                  |                      | 935 |     | nm    |                          |
| Spectral Bandwidth                                           | Δλ                              |                      | 50  |     | nm    |                          |
| Spectral Shift With Temperature                              | Δλ <sub>p</sub> /ΔT             |                      | 0.3 |     | nm/°C |                          |
| Beam Angle <sup>(1)</sup>                                    | Ø                               |                      | 18  |     | degr. | I <sub>F</sub> =Constant |
| Radiation Rise And Fall Time                                 | t <sub>r</sub> , t <sub>f</sub> |                      | 0.7 |     | µs    |                          |

Notes  
 1. Beam angle is defined as the total included angle between the half intensity points.

| ABSOLUTE MAXIMUM RATINGS                           |                       |
|----------------------------------------------------|-----------------------|
| (25°C Free-Air Temperature unless otherwise noted) |                       |
| Continuous Forward Current                         | 75 mA                 |
| Power Dissipation                                  | 125 mW <sup>(1)</sup> |
| Operating Temperature Range                        | -55°C to 125°C        |
| Storage Temperature Range                          | -65°C to 150°C        |
| Soldering Temperature (10 sec)                     | 260°C                 |

Notes  
 1. Derate linearly from 25°C free-air temperature at the rate of 1.19 mW/°C,when soldered into a double sided printed circuit board.



Honeywell reserves the right to make changes in order to improve design and supply the best products possible.

# SE2460

## GaAs Infrared Emitting Diode

Fig. 1 Radiant Intensity vs Angular Displacement

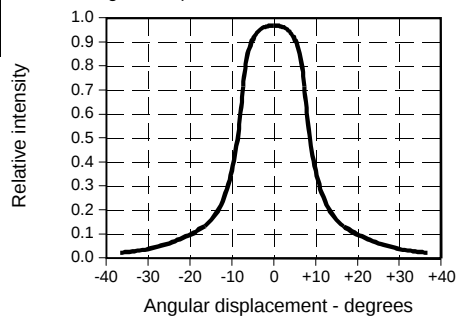


Fig. 2 Radiant Intensity vs Forward Current

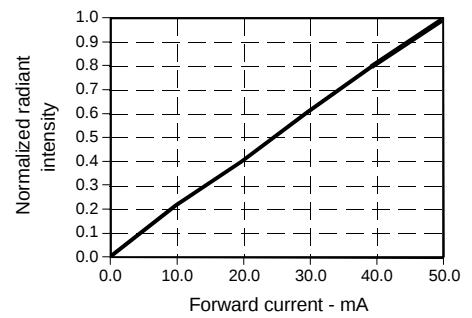


Fig. 3 Forward Voltage vs Forward Current

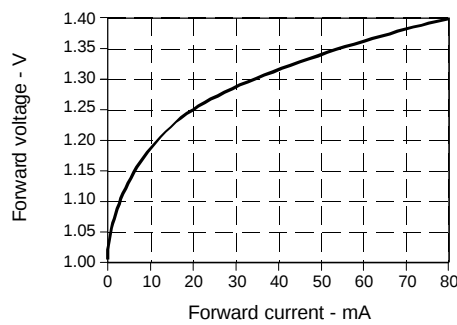


Fig. 4 Forward Voltage vs Temperature

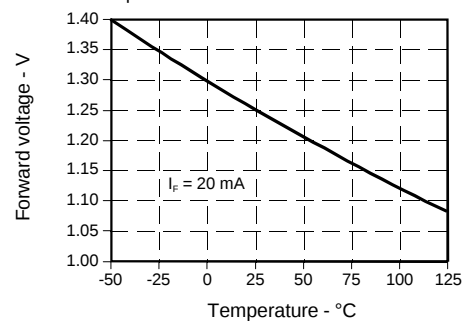


Fig. 5 Spectral Bandwidth

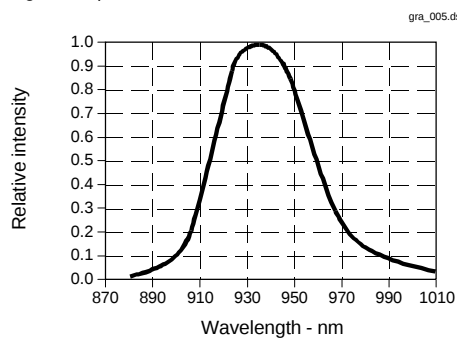
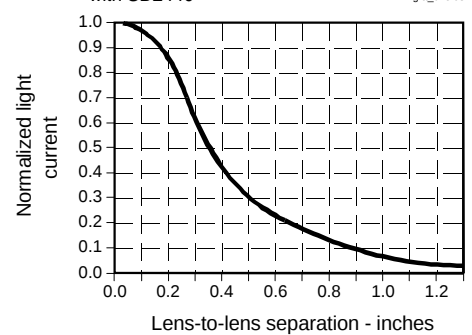


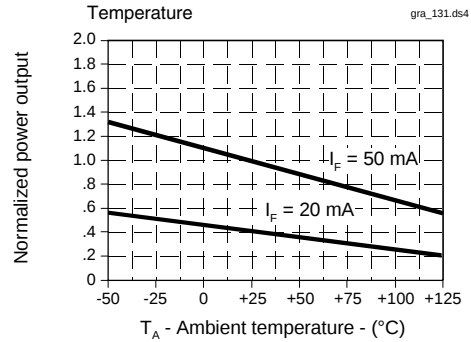
Fig. 6 Coupling Characteristics with SD2440



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## GaAs Infrared Emitting Diode

Fig. 7 Normalized Power Output vs Temperature



All Performance Curves Show Typical Values