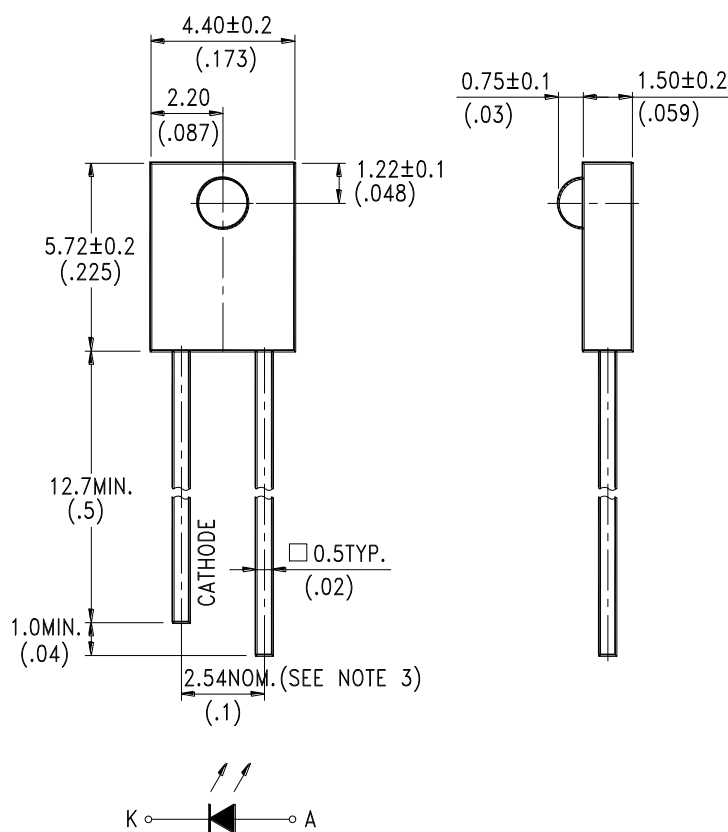


## FEATURES

- \* SELECTED TO SPECIFIC ON-LINE INTENSITY AND RADIANT INTENSITY RANGES
- \* LOW COST MINIATURE PLASTIC SIDE LOOKING PACKAGE
- \* MECHANICALLY AND SPECTRALLY MATCHED TO THE LTR-301 SERIES OF PHOTOTRANSISTOR

## PACKAGE DIMENSIONS



### NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25$  mm ( $.010$  inches) unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

**ABSOLUTE MAXIMUM RATINGS AT TA=25°C**

| PARAMETER                                              | MAXIMUM RATING      | UNIT |
|--------------------------------------------------------|---------------------|------|
| Power Dissipation                                      | 75                  | mW   |
| Peak Forward Current (300pps, 10 $\mu$ s pulse)        | 1                   | A    |
| Continuous Forward Current                             | 50                  | mA   |
| Reverse Voltage                                        | 5                   | V    |
| Operating Temperature Range                            | -40°C to + 85°C     |      |
| Storage Temperature Range                              | -55°C to + 100°C    |      |
| Lead Soldering Temperature<br>[1.6mm(.063") From Body] | 260°C for 5 Seconds |      |

**ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25°C**

| PARAMETER                  | SYMBOL           | MIN.  | TYP. | MAX.  | UNIT               | TEST CONDITION        | BIN NO. |
|----------------------------|------------------|-------|------|-------|--------------------|-----------------------|---------|
| Aperture Radiant Incidence | E <sub>e</sub>   | 0.088 |      | 0.168 | mW/cm <sup>2</sup> | I <sub>F</sub> = 20mA | BIN B   |
|                            |                  | 0.112 |      | 0.204 |                    |                       | BIN C   |
|                            |                  | 0.136 |      | 0.240 |                    |                       | BIN D   |
|                            |                  | 0.160 |      | 0.288 |                    |                       | BIN E   |
|                            |                  | 0.192 |      |       |                    |                       | BIN F   |
| Radiant Intensity          | I <sub>E</sub>   | 0.662 |      | 1.263 | mW/sr              | I <sub>F</sub> = 20mA | BIN B   |
|                            |                  | 0.842 |      | 1.534 |                    |                       | BIN C   |
|                            |                  | 1.023 |      | 1.805 |                    |                       | BIN D   |
|                            |                  | 1.203 |      | 2.165 |                    |                       | BIN E   |
|                            |                  | 1.444 |      |       |                    |                       | BIN F   |
| Peak Emission Wavelength   | $\lambda_{Peak}$ |       | 940  |       | nm                 | I <sub>F</sub> = 20mA |         |
| Spectral Line Half-Width   | $\Delta \lambda$ |       | 50   |       | nm                 | I <sub>F</sub> = 20mA |         |
| Forward Voltage            | V <sub>F</sub>   |       | 1.2  | 1.6   | V                  | I <sub>F</sub> = 20mA |         |
| Reverse Current            | I <sub>R</sub>   |       |      | 100   | $\mu$ A            | V <sub>R</sub> = 5V   |         |
| Viewing Angle (See FIG.6)  | 2 $\theta_{1/2}$ |       | 40   |       | deg.               |                       |         |

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

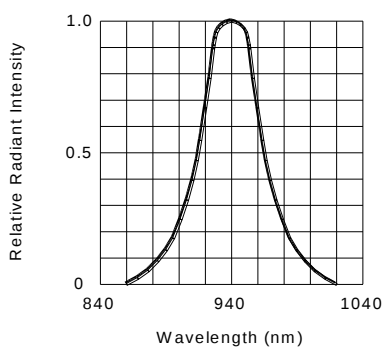


FIG.1 SPECTRAL DISTRIBUTION

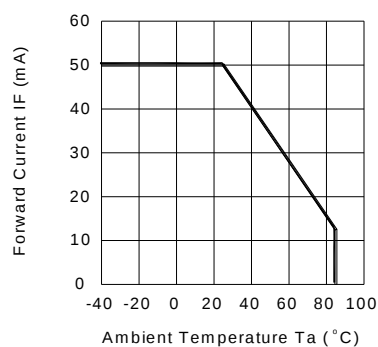


FIG.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

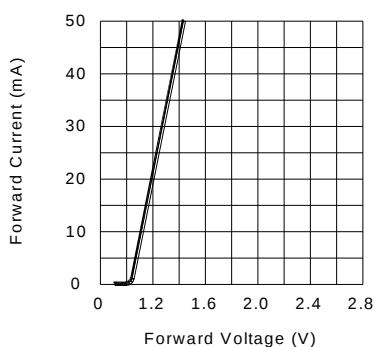


FIG.3 FORWARD CURRENT VS. FORWARD VOLTAGE

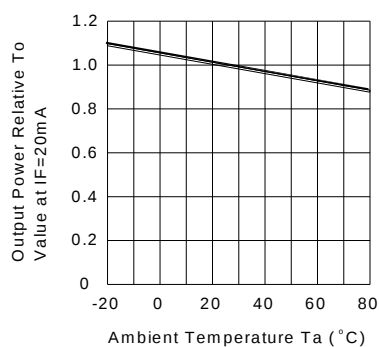


FIG.4 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

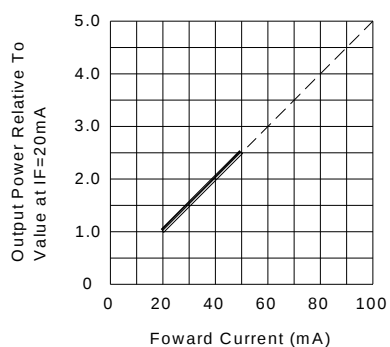


FIG.5 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

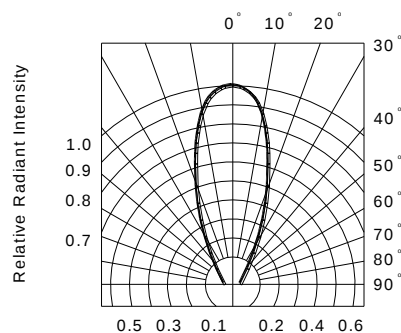


FIG.6 RADIATION DIAGRAM