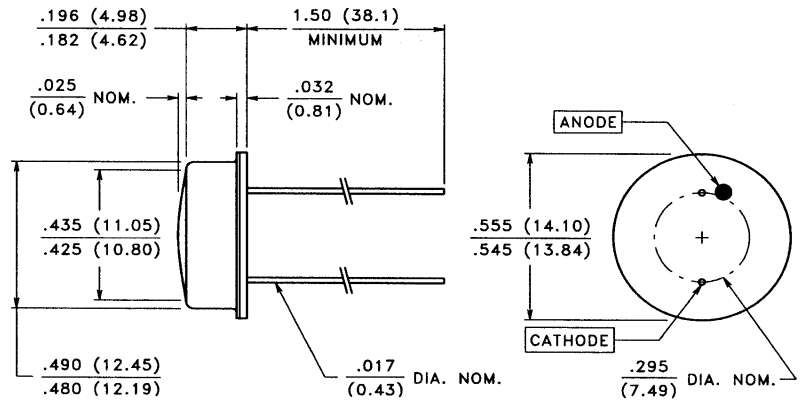


## PACKAGE DIMENSIONS inch (mm)



CASE 15 TO-8 HERMETIC  
CHIP ACTIVE AREA: .032 in<sup>2</sup> (20.6 mm<sup>2</sup>)

## PRODUCT DESCRIPTION

Large area planar silicon photodiode in a "flat" window, dual lead TO-8 package. Cathode is common to the case. These diodes exhibit low dark current under reverse bias and fast speed of response.

## ABSOLUTE MAXIMUM RATINGS

Storage Temperature: -40°C to 110°C  
Operating Temperature: -40°C to 110°C

## ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also VTP curves, page 46)

| SYMBOL             | CHARACTERISTIC                          | TEST CONDITIONS    | VTP6060 |                                |      | UNITS                  |
|--------------------|---|--------------------|---------|--------------------------------|------|------------------------|
|                    |   |                    | Min.    | Typ.                           | Max. |                        |
| I <sub>SC</sub>    | Short Circuit Current                   | H = 100 fc, 2850   | 120     | 200                            |      | μA                     |
| TC I <sub>SC</sub> | I <sub>SC</sub> Temperature Coefficient | 2850 K             |         | .20                            |      | %/°C                   |
| V <sub>OC</sub>    | Open Circuit Voltage                    | H = 100 fc, 2850 K |         | 350                            |      | mV                     |
| TC V <sub>OC</sub> | V <sub>OC</sub> Temperature Coefficient | 2850 K             |         | -2.0                           |      | mV/°C                  |
| I <sub>D</sub>     | Dark Current                            | H = 0, VR = 50 V   |         |                                | 35   | nA                     |
| R <sub>SH</sub>    | Shunt Resistance                        | H = 0, V = 10 mV   |         | 100                            |      | GΩ                     |
| C <sub>J</sub>     | Junction Capacitance                    | H = 0, V = 15 V    |         |                                | 60   | pF                     |
| Re                 | Responsivity                            | 940 nm             |         | .14                            |      | A/(W/cm <sup>2</sup> ) |
| S <sub>R</sub>     | Sensitivity                             | @ Peak             |         | .55                            |      | A/W                    |
| λ <sub>range</sub> | Spectral Application Range              |                    | 400     |                                | 1150 | nm                     |
| λ <sub>p</sub>     | Spectral Response - Peak                |                    |         | 925                            |      | nm                     |
| V <sub>BR</sub>    | Breakdown Voltage                       |                    | 50      | 140                            |      | V                      |
| θ <sub>1/2</sub>   | Angular Resp. - 50% Resp. Pt.           |                    |         | ±45                            |      | Degrees                |
| NEP                | Noise Equivalent Power                  |                    |         | 1.9 x 10 <sup>-13</sup> (Typ.) |      | W/√Hz                  |
| D*                 | Specific Detectivity                    |                    |         | 2.3 x 10 <sup>12</sup> (Typ.)  |      | cm√Hz / W              |