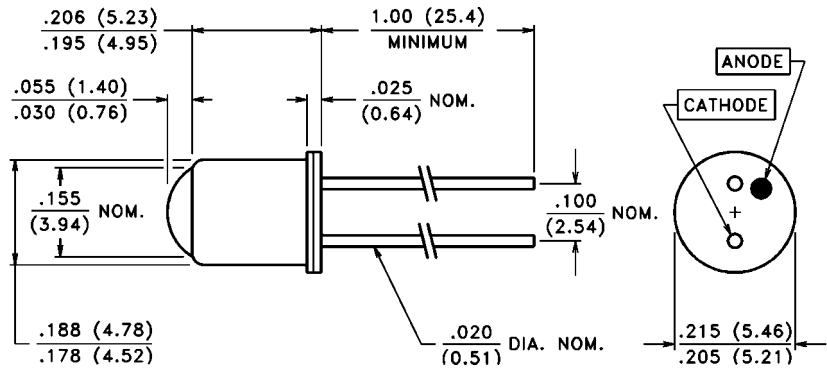




PACKAGE DIMENSIONS inch (mm)



CASE 19 TO-46 LENSED HERMETIC
CHIP ACTIVE AREA: .0025 in² (1.6 mm²)

PRODUCT DESCRIPTION

Small area planar silicon photodiode in a lensed, dual lead TO-46 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

RoHS Compliant



ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also VTP curves, pages 45-46)

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | VTP112H | | | UNITS |
|--------------------|---|--------------------|---------|--------------------------------|------|------------------------|
| | | | Min. | Typ. | Max. | |
| I _{SC} | Short Circuit Current | H = 100 fc, 2850 K | 30 | 90 | | μA |
| TC I _{SC} | I _{SC} Temperature Coefficient | 2850 K | | .20 | | %/°C |
| V _{OC} | Open Circuit Voltage | H = 100 fc, 2850 K | | 350 | | mV |
| TC V _{OC} | V _{OC} Temperature Coefficient | 2850 K | | -2.0 | | mV/°C |
| I _D | Dark Current | H = 0, VR = 50 V | | | 7 | nA |
| R _{SH} | Shunt Resistance | H = 0, V = 10 mV | | .5 | | GΩ |
| C _J | Junction Capacitance | H = 0, V = 15 V | | | 6 | pF |
| Re | Responsivity | 940 nm | | .033 | | A/(W/cm ²) |
| S _R | Sensitivity | @ Peak | | .55 | | A/W |
| λ _{range} | Spectral Application Range | | 400 | | 1150 | nm |
| λ _p | Spectral Response - Peak | | | 925 | | nm |
| V _{BR} | Breakdown Voltage | | 50 | 140 | | V |
| θ _{1/2} | Angular Resp. - 50% Resp. Pt. | | | ±15 | | Degrees |
| NEP | Noise Equivalent Power | | | 8.7 x 10 ⁻¹⁴ (Typ.) | | W/√Hz |
| D* | Specific Detectivity | | | 1.5 x 10 ¹² (Typ.) | | cm√Hz/W |