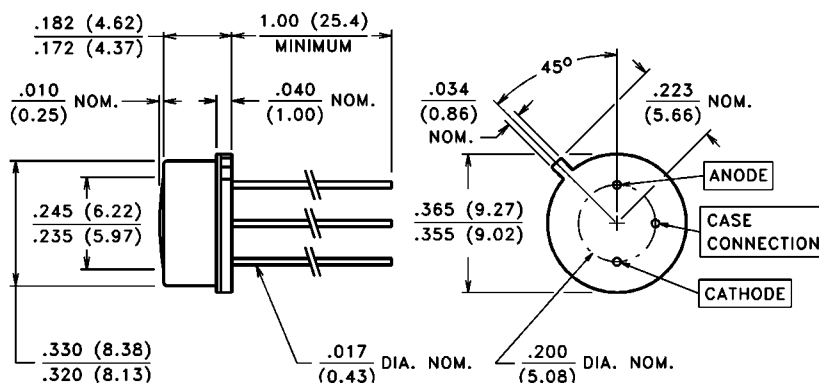


PACKAGE DIMENSIONS inch (mm)



CASE 14A TO-5 HERMETIC
CHIP ACTIVE AREA: .023 in² (14.8 mm²)

PRODUCT DESCRIPTION

Planar silicon photodiode in a three lead TO-5 package with a UV transmitting "flat" window. Chip is isolated from the case. The third lead allows case to be grounded. These diodes have very high shunt resistance and have good blue 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 VTB curves, pages 21-22)

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | VTB5051UVJH | | | UNITS |
|--------------------|---|--------------------|-------------|--------------------------------|------|---------|
| | | | Min. | Typ. | Max. | |
| I _{SC} | Short Circuit Current | H = 100 fc, 2850 K | 85 | 130 | | μA |
| TC I _{SC} | I _{SC} Temperature Coefficient | 2850 K | | .12 | .23 | %/°C |
| V _{OC} | Open Circuit Voltage | H = 100 fc, 2850 K | | 490 | | mV |
| TC V _{OC} | V _{OC} Temperature Coefficient | 2850 K | | -2.0 | | mV/°C |
| I _D | Dark Current | H = 0, VR = 2.0 V | | | 250 | pA |
| R _{SH} | Shunt Resistance | H = 0, V = -10 mV | | .56 | | GΩ |
| TC R _{SH} | R _{SH} Temperature Coefficient | H = 0, V = -10 mV | | -8.0 | | %/°C |
| C _J | Junction Capacitance | H = 0, V = 0 | | 3.0 | | nF |
| S _R | Sensitivity | 365 nm | | 0.1 | | A/W |
| S _R | Sensitivity | 220 nm | .038 | | | A/W |
| λ _{range} | Spectral Application Range | | 200 | | 1100 | nm |
| λ _p | Spectral Response - Peak | | | 920 | | nm |
| V _{BR} | Breakdown Voltage | | 2 | 40 | | V |
| θ _{1/2} | Angular Resp. - 50% Resp. Pt. | | | ±50 | | Degrees |
| NEP | Noise Equivalent Power | | | 2.1 x 10 ⁻¹⁴ (Typ.) | | W/√Hz |
| D* | Specific Detectivity | | | 1.8 x 10 ¹³ (Typ.) | | cm√Hz/W |