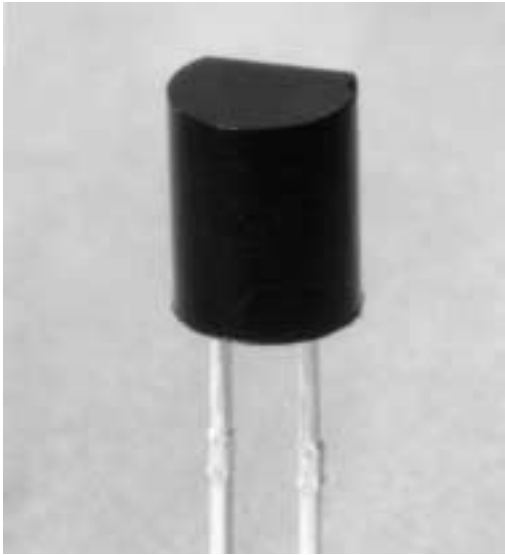
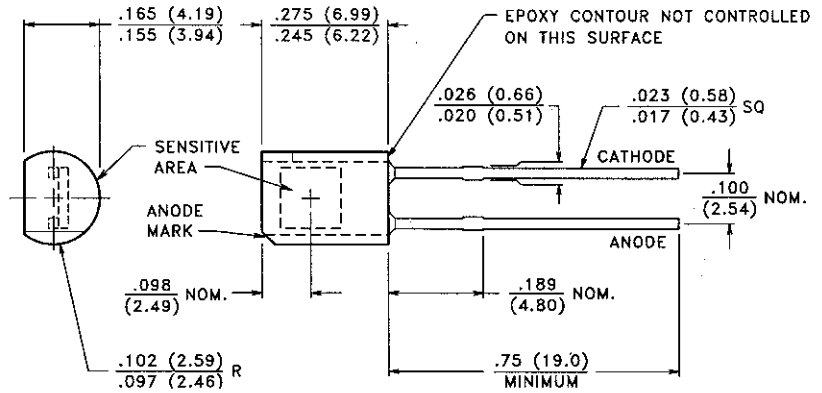


Alternate Source/ Second Source Photodiodes

VTD205H
(SFH205 INDUSTRY EQUIVALENT)



PACKAGE DIMENSIONS inch (mm)



CASE 60 TO-92 TYPE (ROUND LENS)
CHIP ACTIVE AREA: .011 in² (7.41 mm²)

PRODUCT DESCRIPTION

Large area planar silicon photodiode in a cast epoxy sidelooker, similar in outline to the TO-92 package. The package material filters out all visible light but passes infrared. These diodes exhibit low dark current under reverse bias and fast speed of response.

ABSOLUTE MAXIMUM RATINGS

Storage Temperature: -40°C to 100°C
Operating Temperature: -40°C to 100°C

RoHS Compliant



ELECTRO-OPTICAL CHARACTERISTICS @ 25°C

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | VTD205H | | | UNITS |
|-------------------|----------------------------------|------------------------------------|---------|------|------|---------|
| | | | Min. | Typ. | Max. | |
| I_{SC} | Short Circuit Current | 940 nm, H = 0.5 mW/cm ² | 15 | 25 | | μA |
| TC I_{SC} | I_{SC} Temperature Coefficient | 2856 K | | .20 | | %/°C |
| V_{OC} | Open Circuit Voltage | 940 nm, H = 0.5 mW/cm ² | 250 | 350 | | mV |
| TC V_{OC} | V_{OC} Temperature Coefficient | 2856 K | | -2.6 | | mV/°C |
| I_D | Dark Current | H = 0, V_R = 10 V | | 2 | 30 | nA |
| C_J | Junction Capacitance | H = 0, V_R = 0 v, 1 MHz | | 72 | | pF |
| t_R/t_F | Rise/Fall Time @ R_L = 50Ω | V_R = 5 V, 850 nm | | 20 | | nsec |
| S_R | Sensitivity | @ Peak | | 0.6 | | A/W |
| λ_{range} | Spectral Application Range | | 800 | | 1100 | nm |
| λ_p | Spectral Response - Peak | | | 925 | | nm |
| V_{BR} | Breakdown Voltage | | 20 | 50 | | V |
| $\theta_{1/2}$ | Angular Resp.-50% Resp. Pt. | | | ±60 | | Degrees |