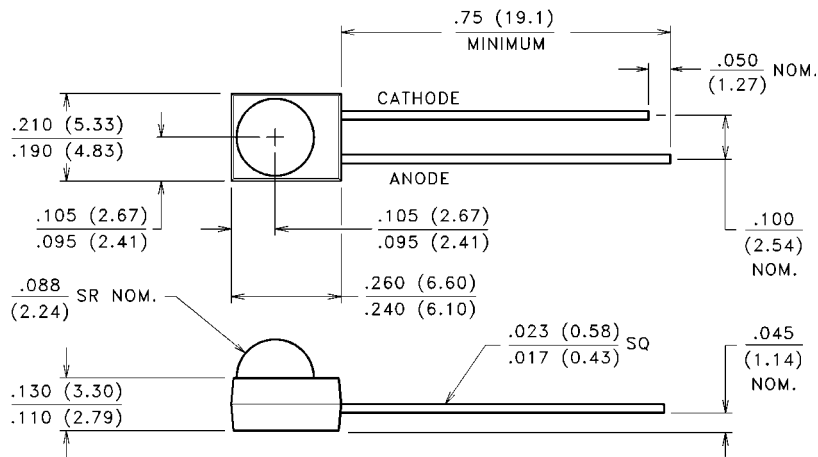


PACKAGE DIMENSIONS inch (mm)



CASE 51 LENSED SIDELOOKER
CHIP ACTIVE AREA: .0082 in² (5.27 mm²)

PRODUCT DESCRIPTION

Planar silicon photodiode in a transfer molded, large lensed sidelooper package. The dark package material filters out 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 85°C
Operating Temperature: -40°C to 85°C

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

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | VTP7840 | | | UNITS |
|--------------------|---|------------------------------|---------|--------------------------------|------|-----------|
| | | | Min. | Typ. | Max. | |
| I _{SC} | Short Circuit Current | H = 100 fc, 2850 K | 50 | 70 | | μA |
| TC I _{SC} | I _{SC} Temperature Coefficient | 2850 K | | .20 | | %/°C |
| V _{OC} | Open Circuit Voltage | H = 100 fc, 2850 K | | 325 | | mV |
| TC V _{OC} | V _{OC} Temperature Coefficient | 2850 K | | -2.0 | | |
| I _D | Dark Current | H = 0, V _R = 10 V | | | 20 | nA |
| R _{SH} | Shunt Resistance | H = 0, V = 10 mV | | 0.25 | | GΩ |
| C _J | Junction Capacitance | H = 0, V = 3 V | | | 40 | pF |
| S _R | Sensitivity | @ Peak | | .55 | | A/W |
| λ _{range} | Spectral Application Range | | 725 | | 1150 | nm |
| λ _p | Spectral Response - Peak | | | 925 | | nm |
| V _{BR} | Forward Voltage | @ 10 mA | | 1.0 | | V |
| θ _{1/2} | Angular Resp. - 50% Resp. Pt. | | | ±48 | | Degrees |
| NEP | Noise Equivalent Power | | | 5.3 x 10 ⁻¹⁴ (Typ.) | | W/√Hz |
| D* | Specific Detectivity | | | 5.1 x 10 ¹² (Typ.) | | cm√Hz / W |