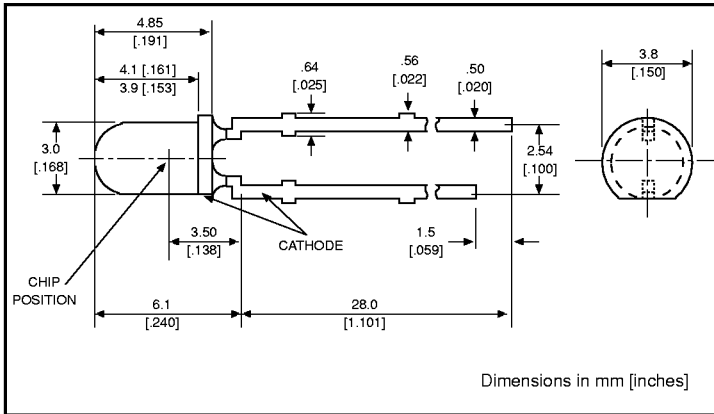


**NEW**

**3mm  
Infrared Discrete LED  
Silicon PIN Photo Diode**

**Dialight**  
**521-9741**



**Features**

- Short Switching Time
- High Spectral Sensitivity
- Daylight Filtered for Near Infrared Range
- Low Capacitance
- High Reliability With No Testable Degradation

**ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C)**

Operating and Storage Temperature Range (T <sub>OR</sub> T <sub>STG</sub> )	-55 to +100°C
Soldering Temperature (≥ 2 mm from case bottom) (T <sub>s</sub> ) t≤3 s	230°C
Reverse Voltage (V <sub>R</sub> )	20V
Total Power Dissipation (P <sub>TOT</sub> ) T <sub>A</sub> =25°C	150 mW

**OPERATING CHARACTERISTICS (T<sub>A</sub>=25°C)**

Parameter	Symbol	Value	Unit
Spectral Sensitivity (V <sub>R</sub> =5V) (E <sub>e</sub> =1 mW/cm <sup>2</sup> , λ=950 nm)	S	10.8 min, 20 typ	μA
Wavelength, Max. Sensitivity	λ <sub>Smax</sub>	900 typ	nm
Photosensitivity, Spectral Range (S = 10%, S <sub>max</sub> )	λ	730 min, 1100 max	nm
Radiant Sensitive Area	A	.3	mm <sup>2</sup>
Full Angle	2θ 1/2	34° typ	Deg
Dark Current (V <sub>R</sub> =10V)	I <sub>R</sub>	50 typ, 5000 max	pA
Open Circuit Voltage (E <sub>e</sub> =0.5 mW/cm <sup>2</sup> , λ=950 nm)	V <sub>0</sub>	370 min, 420 typ	μV
Short Circuit Current (E <sub>e</sub> =0.5 mW/cm <sup>2</sup> , λ=950 nm)	I <sub>SC</sub>	9	μA
Temperature Coefficient (I <sub>K</sub> , 950 nm)	TC <sub>I</sub>	.03	%/K
Capacitance, C <sub>0</sub> (V <sub>R</sub> = 0, F = 1mHz, E <sub>E</sub> = 0)		13 typ	pF
Forward Voltage V <sub>F</sub> = (I <sub>F</sub> = 100mA, E <sub>E</sub> = 0)		1.3 typ	V

Solder Adherence per MIL-STD-202E, Method 208C