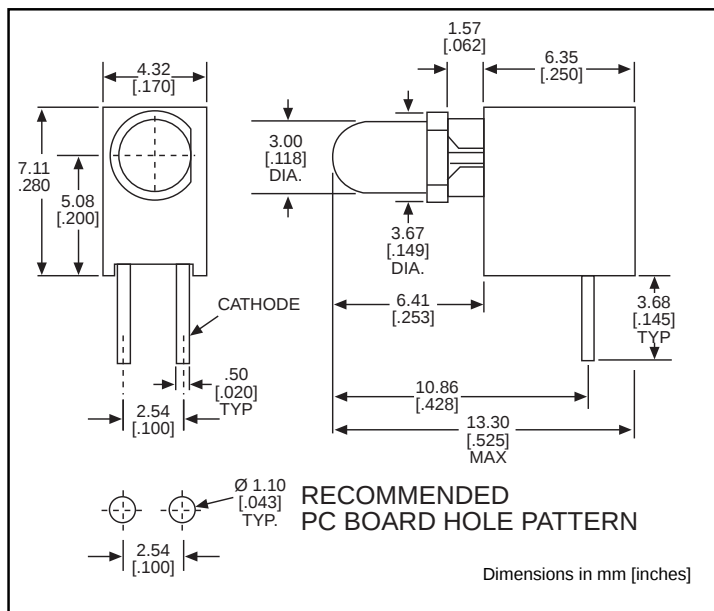


3mm Silicon PNP Photo Transistor

Dialight

551-7610



Features

- Silicon PNP type transistor
- Narrow acceptance angle
- Daylight filtered
- Good linearity
- High reliability

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

Operating and Storage Temperature Range ($^\circ\text{C}$)	-55/+100
Soldering Temperature ($\geq 2\text{mm}$ from case bottom)	
Dip Soldering Time (T_S) ≤ 5 s	260 $^\circ\text{C}$
Iron Soldering Time (T_S) ≤ 3 s	300 $^\circ\text{C}$
Collector Emitter Voltage (V_{CEO})	35V
Collector Current (I_C)	15 mA
Collector Peak Current (I_{PK}) $t < 10\mu\text{s}$	75 mA
Power Dissipation (P_{TOT}) $T_A=25^\circ\text{C}$	165 mW
Thermal Resistance (R_{THJA})	450kW

OPERATING CHARACTERISTICS ($T_A=25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Maximum Sensitivity Wavelength	λ_{Smax}	900	nm
Spectral Range, Photosensitivity	λ	730 min, 1120 max	nm
Radiant Sensitive Area	A	.045 typ	mm ²
Distance, Chip Surface and Lens	H	2.4 typ, 2.8 max	mm
Full Angle	$2\theta_{1/2}$	24 $^\circ$	Deg.
Capacitance ($V_{CE}=0$ V, $f=1$ MHz, $E=0$ lux)	C_{CE}	5	pF
Leakage Current ($V_{CE}=25$ V, $E=0$ lx)	I_{ce0}	1 typ, 200 max	nA
Photocurrent, Collector-Emitter ⁽¹⁾ ($E_e=0.5$ mW/cm ² , $V_{CE}=5$ V, $\lambda=950$ nm)	I_{PCE}	.63 min, 1.5 typ	mA
Rise/Fall Time ($I_C=1$ mA, $V_{CC}=5$ V, $R_L=1k\Omega$)	t_R, t_F	6.5 typ	μs
Collector Emitter Saturation Voltage ($I_C=I_{PCEmin}^{(1)} \cdot 0.3$, $\lambda=950$ nm, $E_e=0.5$ mW/cm ²)	V_{CEsat}	200	mV

Notes: (1) I_{PCEmin} = minimum photocurrent

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