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NTE3120A Silicon NPN Phototransistor Detector Sidelooker Epoxy Package

Features:

- Spectral Range of Sensitivity: 450 to 1100nm Typ
- Package: Sidelooker, Epoxy
- Special: High Photosensitivity

Applications:

- A Variety of Manufacturing and Monitoring Applications
- Photointerrupters

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Collector–Emitter Voltage, V_{CE}	30V
Collector Current, I_C	50mA
Collector Surge Current, I_{CS}	100mA
Emitter–Collector Voltage, V_{EC}	7V
Total Power Dissipation, P_{tot}	100mW
Operating Temperature Range, T_{opr}	-40° to $+100^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° to $+100^\circ\text{C}$
Thermal Resistance, Junction–to–Ambient, R_{thJA}	750K/W

Electro–Optical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Peak Sensitivity Wavelength	λ_{Smax}		–	880	–	nm
Spectral Range of Sensitivity	$\lambda_{10\%}$		450	–	1100	nm
Radiant Sensitive Area	A		–	0.11	–	mm^2
Dimensions of Chip Area	L x W		.022 (0.55) x .022 (0.55)			in (mm)
Acceptance Half Angle	θ		–	± 35	–	deg
Capacitance	C_{CE}	$V_{CE} = 0V, f = 1\text{MHz}, E = 0$	–	7.5	–	pF
Photocurrent	I_{PCE}	$\lambda = 950\text{nm}, E_e = 0.5\text{mW}/\text{cm}^2, V_{CE} = 5V$	250	–	–	μA
		$E_V = 1000 \text{ 1x, Std. Light A}, V_{CE} = 5V$	–	3200	–	μA
Dark Current	I_{CEO}	$V_{CE} = 20V, E = 0$	–	1	50	nA
Rise and Fall Time	t_r, t_f	$R_L = 1\text{k}\Omega, V = 5V, I_C = 1\text{mA}$	–	10	–	μs
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$		–	150	–	mV



