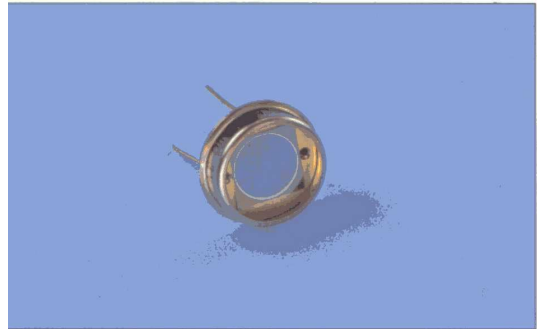


Silicon Photodetector

Series 3T

EXTENDED IR RESPONSE HIGH SPEED

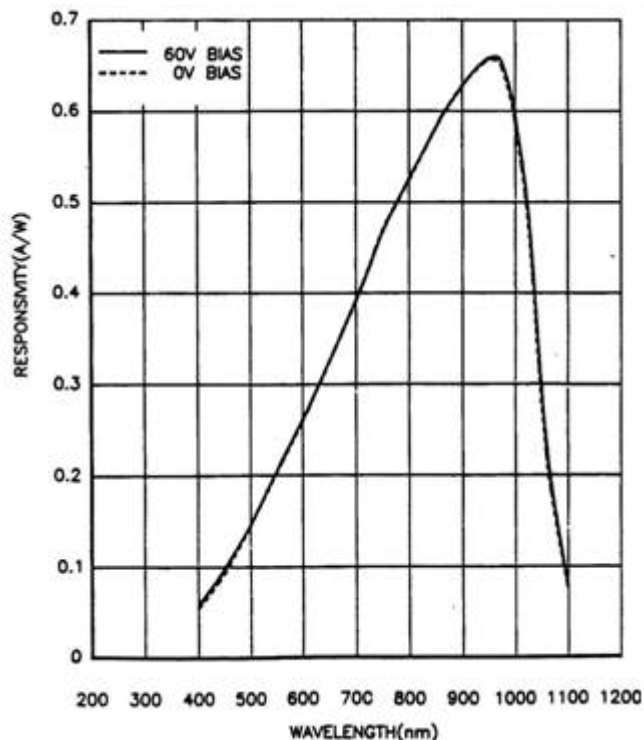
3T series photodetectors are specifically designed for high speed, infra-red laser pulse detection. The detector structure designed to be fully depleted at 60 volts reverse bias, uses high resistivity silicon to achieve very low capacitance. The detectors offer high responsivity in the 800-1000 nm range but are equally suited to high speed application at longer wavelengths where maximum absolute responsivity is not as important as speed of response.



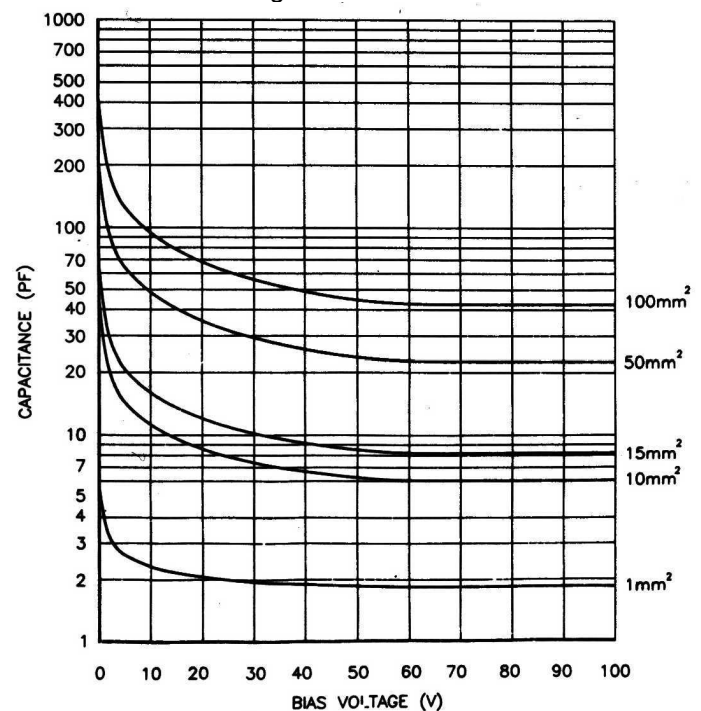
ABSOLUTE MAXIMUM RATINGS

	Max. Rating
DC Reverse Voltage	70V
Peak Pulse Current (1 μ s, 1% duty cycle)	200mA
Peak DC Current	10mA
Storage Temperature Range	-45°C to + 100°C
Operating Temperature Range	-25°C to + 75°C
Soldering Temperature for 5 seconds max.	200°C

Series 3T – Typical Spectral Response



Series 3T – Typical Capacitance versus Bias Voltage and Active Area



Electrical / Optical Specifications

Characteristics measured at 22°C (±2) ambient, and a reverse bias of 60 volts, unless otherwise stated.

Single Elements

Type No.	Active Area		Responsivity A/W $\lambda = 900 \text{ nm}$		Dark Current nA		NEP $\text{WHz}^{-1/2}$ $\lambda = 900 \text{ nm}$ Typ.	Capacitance pF		Risetime ns $\lambda = 900 \text{ nm}$ $R_L = 50 \Omega$ Typ.	Package
	mm^2	mm	Min.	Typ.	Max	Typ.		$V_r = 0\text{-V}$ Typ.	$V_r = 60\text{V}$ Max.		
OSD1-3T	1	1.13 dia	0.54	0.61	10	3	1.0×10^{-13}	7	2.5	10	TO18
OSD5-3T	5	2.52 dia	0.54	0.61	30	7	1.6×10^{-13}	30	5	10	TO5
OSD15-3T	15	3.8 x 3.8	0.54	0.61	40	10	1.9×10^{-13}	90	10	10	TO5
OSD35-3T	35	5.9 x 5.9	0.54	0.61	150	70	4.8×10^{-13}	205	22	10	TO8
OSD50-3T	50	7.98 dia	0.54	0.61	200	100	5.9×10^{-13}	290	27	10	TO8
OSD60-3T	62	7.9 x 7.9	0.54	0.61	300	100	5.9×10^{-13}	350	32	10	TO8
OSD100-3T	100	11.3 dia	0.54	0.61	600	200	8.3×10^{-13}	580	52	10	13

Highlighted items are Centronic standard products generally available from stock