

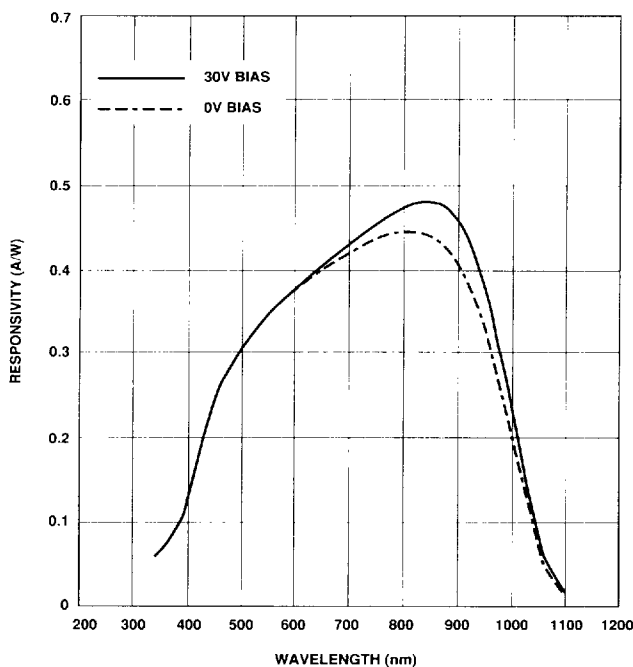
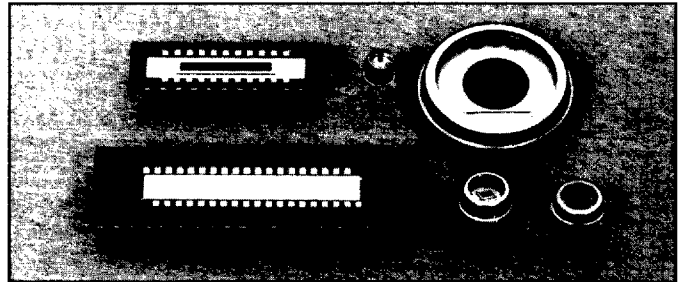
Series 5T

Blue Sensitive for Biased or Unbiased Operation

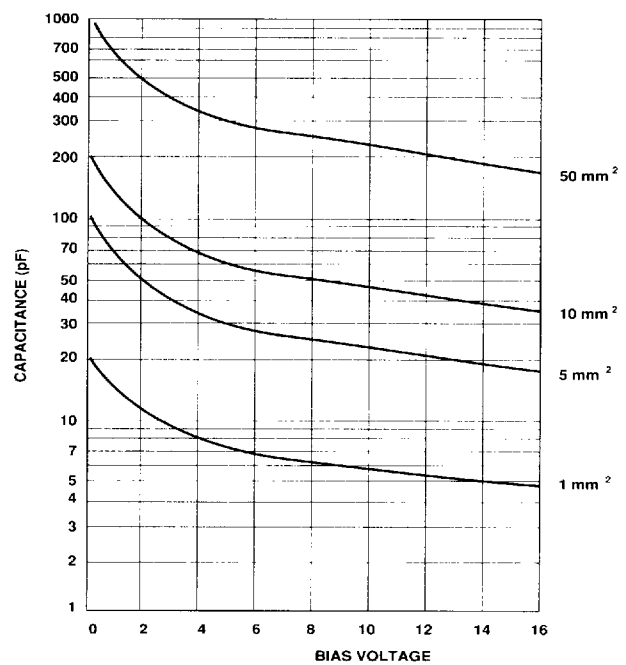
The Centronic Series 5T photodiodes offer high blue sensitivity coupled with high shunt resistance and low dark leakage current. They are particularly suited to low light level applications from 430 - 900nm where the highest signal to noise ratio is important. They may be operated photovoltaically or with a reverse bias of up to 12V where lower capacitance is needed.

ABSOLUTE MAXIMUM RATINGS

	Max. Rating	Unit
DC Reverse Voltage	30	V
Storage Temperature Range	-45 to +100	°C
Operating Temperature Range	-25 to +75	°C



SERIES 5T - TYPICAL SPECTRAL RESPONSE



SERIES 5T - TYPICAL CAPACITANCE VERSUS BIAS VOLTAGE FOR A GIVEN ACTIVE AREA



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Series 5T

Electrical / Optical Specifications

Characteristics measured at 22° C (±2) ambient, and a reverse bias of 12 volts, unless otherwise stated.

Shunt Resistance measured at ± 10mV.

For risetime on Quadrants, Linear and Matrix Arrays use value for single element diode having equivalent active area.

Series 5T responsivity tested at 436nm is .18 A/W min., typical .21 A/W

Single Elements

Type No.	Active Area		Dark Current nA		NEP $\text{WHz}^{-1/2}$ $\lambda = 436 \text{ nm}$ $V_r = 0\text{V}$ Typ.	Capacitance pF		Shunt Resistance Megohms		Risetime ns $\lambda = 820 \text{ nm}$ $R_s = 50 \Omega$ Typ.	Package
	mm ²	mm	Max.	Typ.		$V_r = 0\text{V}$ Max	$V_r = 12\text{V}$ Max.	Min.	Typ.		
OSD1-5T	1	1.13 dia	1	0.2	2.5×10^{-14}	35	7	250	1000	7	4
OSD3-5T	3	2.16 x 1.4	2	0.5	3.0×10^{-14}	80	20	100	700	9	4
OSD5-5T	5	2.52 dia	2	0.5	3.3×10^{-14}	130	35	100	600	9	9
OSD7.5-5T	7.5	2.75 x 2.75	3	1	4.6×10^{-14}	180	40	60	300	10	9
OSD15-5T	15	3.8 x 3.8	5	1	5.5×10^{-14}	390	80	50	200	12	9
OSD35-5T	35	5.9 x 5.9	10	2	7.5×10^{-14}	950	200	20	100	20	15
OSD50-5T	50	7.98 dia	15	5	1.6×10^{-13}	1300	270	5	25	26	17
OSD60-5T	62	7.9 x 7.9	25	6	2.3×10^{-13}	1800	310	3	12	30	17
OSD100-5T	100	11.3 dia	30	8	2.1×10^{-13}	2500	520	2	15	45	20
OSD100-5T BNC	100	11.3 dia	30	8	2.1×10^{-13}	2500	520	2	15	45	21

Quadrants

(Values given are per element unless otherwise stated)

Type No.	Active Area			Dark Current nA		NEP $\text{WHz}^{-1/2}$ $\lambda = 436 \text{ nm}$ $V_r = 0\text{V}$ Typ.	Capacitance pF		Shunt Resistance Megohms		Crosstalk % $\lambda = 900 \text{ nm}$		Package
	mm ²	mm	Sep. mm	Max.	Typ.		$V_r = 0\text{V}$ Max	$V_r = 12\text{V}$ Max.	Min.	Typ.	Min.	Typ	
QD7-5T	7	2.99 dia	0.2	6	2	2.3×10^{-14}	50	15	80	1200	5	1	14
QD50-5T	50	7.98 dia	0.2	30	3	4.6×10^{-14}	330	80	10	300	5	1	18
QD100-5T	100	11.3 dia	0.2	50	5	7.9×10^{-14}	650	130	5	100	5	1	19

Linear Arrays

(Values given are per element unless otherwise stated)

Type No.	No. of Elements	Array Dimensions				Shunt Resistance Megohms		NEP $\text{WHz}^{-1/2}$ $\lambda = 436 \text{ nm}$ Typ.	Capacitance pF		Dark Current nA		Package
		Area mm ²	Width mm	Lgth. mm	Sep. mm	Min.	Typ.		$V_r = 0\text{V}$ Typ.	$V_r = 12\text{V}$ Max.	Max.	Typ.	
LD2A-5T	2	1.00	2.0	0.5	0.05	100	1000	2.5×10^{-14}	30	6	2	0.7	11
LD2B-5T	2	2.02	1.422	1.422	0.45	50	1000	2.5×10^{-14}	60	12	5	1	11
LD2C-5T	2	0.483	1.27	0.38	0.05	100	1000	2.9×10^{-14}	15	4	2	0.5	5
LD4B-5T	4	15.0	3.0	5.0	0.05	15	400	4.5×10^{-14}	380	80	25	3	24
LD4C-5T	4	0.64	0.8	0.8	0.3	40	500	4.0×10^{-14}	38	10	10	1	12
LD5A-5T	5	0.10	0.125	0.8	0.05	100	1000	2.9×10^{-14}	4	2	5	0.5	12
LD12A-5T	12	0.25	0.5	0.5	0.05	100	2000	2.0×10^{-14}	10	3	5	0.5	12
LD16C-5T	16	0.035	0.2	0.175	0.025	100	2000	2.0×10^{-14}	10	2	5	0.5	24
LD16(1.8)-5T	16	1.8	2.1	0.9	0.1	100	1500	2.0×10^{-14}	60	11	5	0.5	24
LD16(2.5)-5T	16	2.5	2.5	1	0.5	100	1500	2.0×10^{-14}	80	14	5	0.5	24
LD20-5T	20	3.60	4.0	0.90	0.05	100	1000	2.5×10^{-14}	130	20	5	0.5	24
LD20(0.36)-5T	20	0.36	0.6	0.6	0.1	100	2000	1.7×10^{-14}	15	5	5	0.5	24
LD35-5T	35	4.42	4.6	0.96	0.03	40	2000	1.7×10^{-14}	130	25	5	0.5	25

Matrix Arrays

(Values given are per element unless otherwise stated)

Type No.	No. of Elements	Array Dimensions				Dark Current nA		NEP $\text{WHz}^{-1/2}$ $\lambda = 436 \text{ nm}$ Typ.	Capacitance pF		Shunt Resistance Megohms		Package
		Area mm ²	Width mm	Lgth. mm	Sep. mm	Max.	Typ.		$V_r = 0\text{V}$ Typ.	$V_r = 30\text{V}$ Max.	Min.	Typ.	
MD25-5T	5 x 5	7.99	2.7	2.7	0.1	50	5	6.4×10^{-14}	240	47	5	200	26
MD100-5T	10 x 10	1.96	1.4	1.4	0.1	200	1	4.5×10^{-14}	55	12	1	400	27
MD144-5T	12 x 12	1.96	1.4	1.4	0.1	200	1	4.5×10^{-14}	55	12	1	400	27



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