

Silicon Photodetector

AEPX Series

ULTRA HIGH SPEED

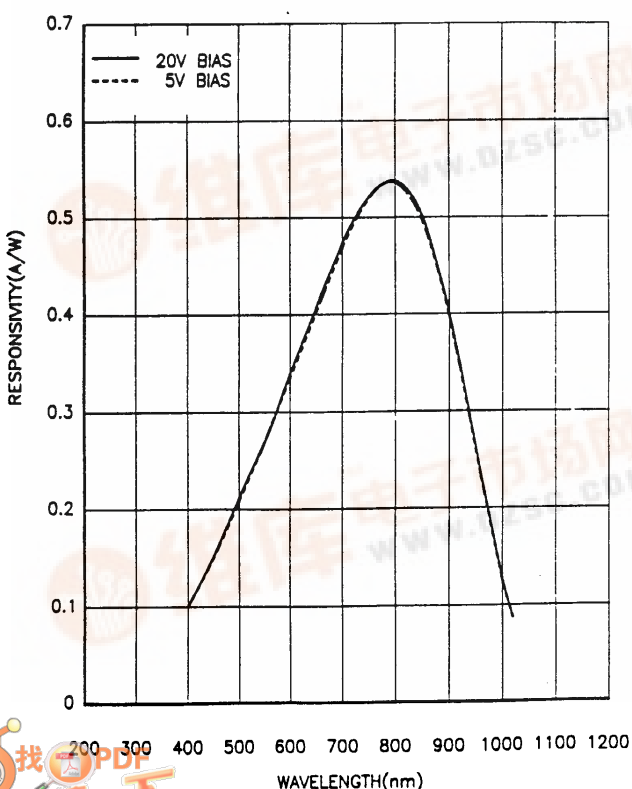
The AEPX Series of photodiodes is offered in a range of small active area sizes suitable for high frequency fibre optic applications. These photodetectors take advantage of an epitaxial structure to achieve good high frequency response at operating voltages as low as 5 volts. The detectors may also be operated at higher bias levels up to 20 volts to achieve extremely fast pulsed response.



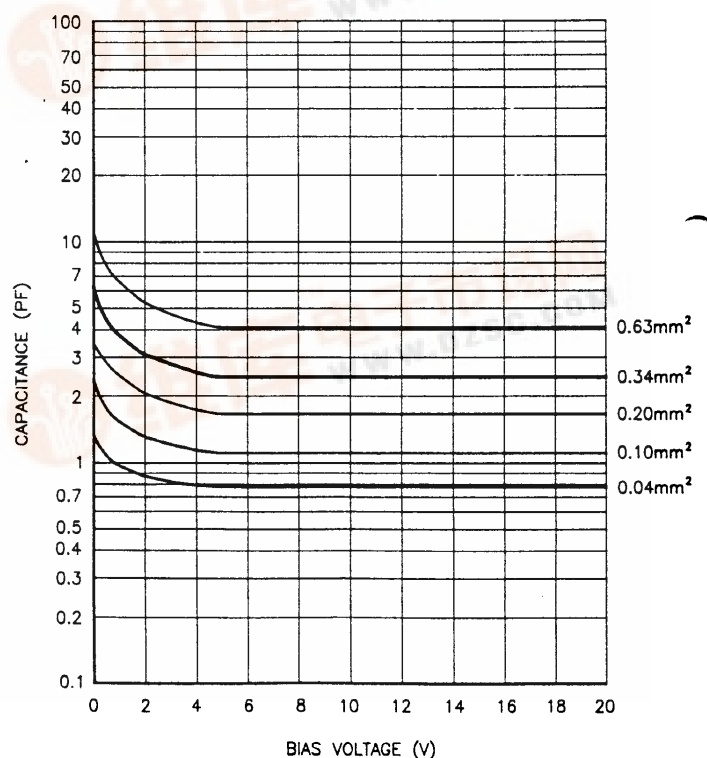
ABSOLUTE MAXIMUM RATINGS

	Max. Rating
DC Reverse Voltage	30V
Peak Pulse Current (1 μ s, 1% duty cycle)	200mA
Peak DC Current	10mA
Storage Temperature Range	-55°C to + 125°C
Operating Temperature Range	-55°C to + 120°C
Soldering Temperature Range	200°C

Series AEPX - Typical Spectral Response



Series AEPX - Typical Capacitance versus Bias Voltage and Active Area



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Electrical / Optical Specifications

Characteristics measured at 22°C (±2) ambient and a reverse bias of 5V unless otherwise stated.

Single Elements

Type No.	Active Area		Responsivity A/W $\lambda = 900 \text{ nm}$		Dark Current nA 5V		NEP WHz ⁻¹ $\lambda = 900 \text{ nm}$ 5V Typ.	Capacitance pF		Risetime ns $\lambda = 900 \text{ nm}$ $R_L = 50 \Omega$ VR=5V VR=20V		Package
	mm ²	mm	Min.	Typ.	Max.	Typ.		Vr = 5V Max	Vr = 20V Max.			
AEPX65	0.63	0.9 dia	0.3	0.37	10	2	6.8×10^{-14}	5	5	2.4	1.0	2A
AEPX35	0.34	0.66 dia	0.3	0.37	5	1	4.8×10^{-14}	3	3	2.4	1.0	2A
AEPX20	0.20	0.51 dia	0.3	0.37	3	1	4.8×10^{-14}	2	2	2.4	1.0	2A
AEPX10	0.10	0.36 dia	0.3	0.37	3	0.5	3.4×10^{-14}	1.5	1.5	2.4	1.0	2A
AEPX04	0.04	0.23 dia	0.3	0.37	2	0.2	2.2×10^{-14}	1	1	2.4	1.0	2A

Highlighted items are Centronic standard products generally available from stock