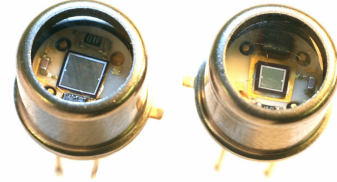


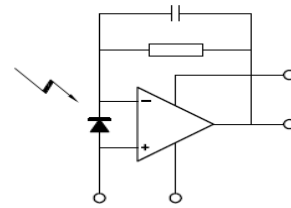
HYBRID PHOTODETECTOR

Amplified Single Element Detector (ASD) Series

Centronic ASD Series integrate high performance single element photodiodes coupled to a high input impedance op-amp to create a low noise, high gain photodetector. Light falling on the active area of the photodiode causes the output voltage to swing positive with respect to ground. The photodiode has been optimised for sensitivity to near infra-red wavelengths. The detector and circuit are hermetically sealed in an industry standard TO5 package with a glass window.



Customer specified options include tailoring the photo response and transimpedance gain of the device. Alternative packaging can include multi-channel, thermoelectrically cooled and fibre coupled formats.



Applications

- Low Light Measurements (Phosphors)
- Product Quality Assurance (LED's, Displays)
- Instrumentation (Metrology)

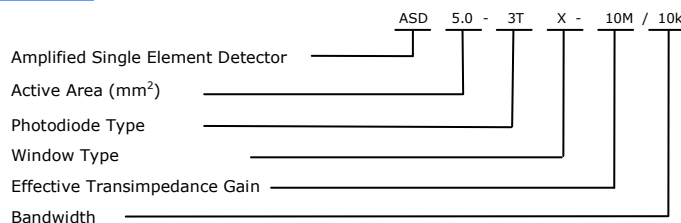
General ratings/Absolute maximum ratings

	Max. Rating
DC Supply Voltage	±18V
Storage Temperature Range	-30°C to +100°C
Operating Temperature Range	-20°C to +80°C

Typical Characteristics (measured at 22°C (±2) ambient, V±12V unless otherwise stated)

DEVICE TYPE	Photodiode Active Area mm ²	DC Supply Voltage (Dual Rail) V	Quiescent current mA	Transimpedance Gain MΩ	Bandwidth kHz	Dark Noise Amplitude (1MΩ) mV	Dark Noise Offset (1MΩ) mV	Risetime µs	Spectral Enhancement		Package
									IR	E	
ASD 1.75-3T-10M/10k <i>(Flat window)</i>	1.75	±3 to ±18 <i>Typically ±12</i>	4.0	10	10	1.0	2.0	50	✓	-	TO5
ASD 5.0-3T-10M/10k <i>(Flat window)</i>	5.0	±3 to ±18 <i>Typically ±12</i>	4.0	10	10	1.0	4.0	50	✓	-	TO5
ASD 5.0-3TL-10M/10k <i>(Lensed window)</i>	5.0	±3 to ±18 <i>Typically ±12</i>	4.0	10	10	1.0	4.0	50	✓	-	TO5
ASD 5.0-3TE-10M/10k <i>(Eye Response window)</i>	5.0	±3 to ±18 <i>Typically ±12</i>	4.0	10	10	1.0	4.0	50	-	✓	TO5

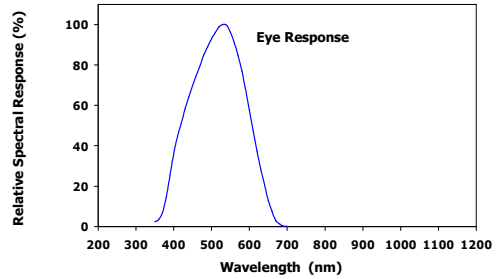
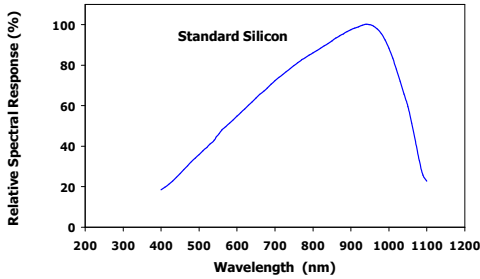
Ordering Information



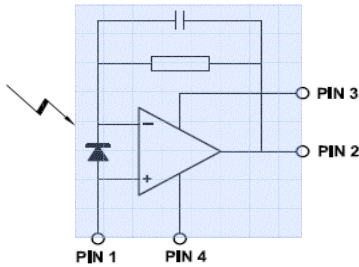
HYBRID PHOTODETECTOR

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Typical Relative Spectral Response



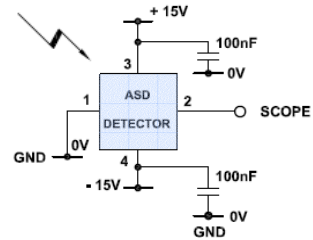
Circuit Schematic



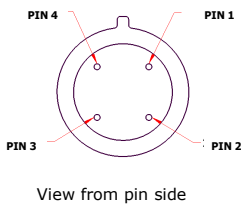
- PIN 1:** CASE & GND
- PIN 2:** OUTPUT
- PIN 3:** +Vs
- PIN 4:** -Vs

For Single rail operation pins 1 & 4 to be both connected to ground.

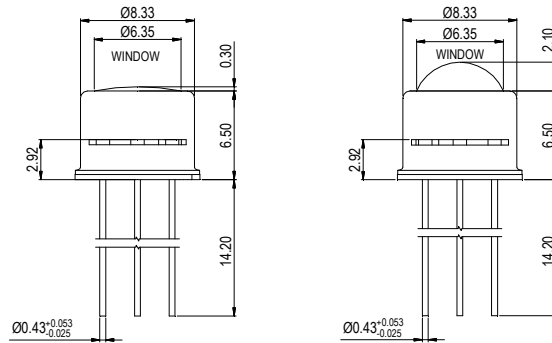
Typical Test Circuit



Pinout



Dimensional Outline



Dimensions: mm (inches)



Due to our policy of continued development, specifications are subject to change without notice.

These components have been checked against our RoHS Database and all are compliant with the Regulation. This compliance status is based on, to the best of our knowledge that the product comes under Article 4, Part 2, Category 5 exemptions for lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

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