

TECHNICAL DATA SHEET

Centronic Silicon Photodetectors

Opto Hybrid Series



OSI 5-10M/10K

The OSI 5-10M/10K range of products are the most commonly available series of hybrid detectors manufactured by Centronic. These detectors are used for applications as diverse as colour sorting, ambient brightness control, automated inspection and optical encoders.

Active Area of Diode 5 mm² (square)

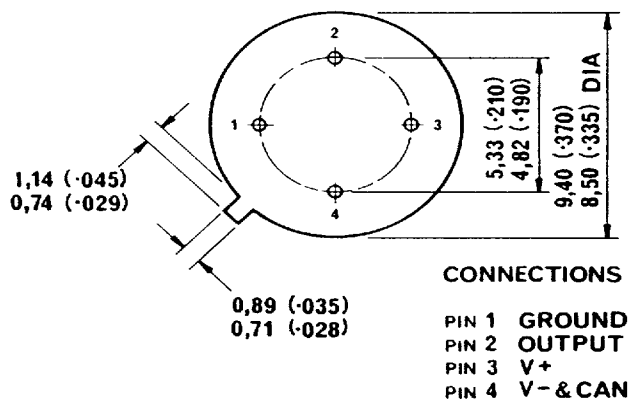
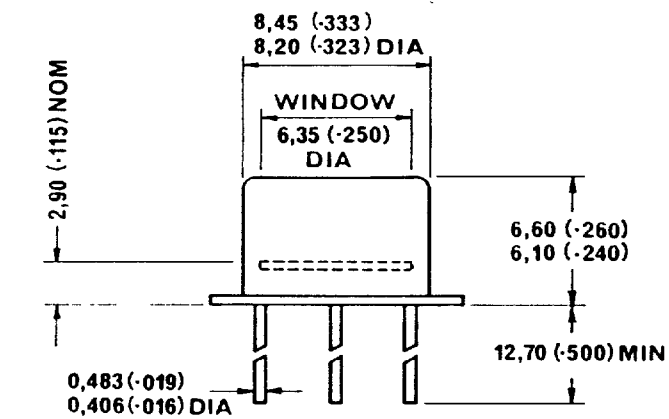
All Measurements at +/- 15 volts and 25° C unless otherwise stated.

Parameter	Conditions	Min.	Typ.	Max.	Units
O/P Dark Voltage	Load resistor > 10 kohm		+20	+60	mV
O/P Saturation Voltage			-12		V
Short Circuit Duration		Indefinite			
O/P Short Circuit Current		5	6		mA
O/P Noise Voltage			1	3	mV rms
Responsivity (Note 1)	254 nm OSI 5-UV-10M/10K	0.3	0.35		V/ μ W
	530 nm OSI 5-V-10M/10K	2.7	3.3		
	900 nm OSI 5-IR-10M/10K	5.0	5.8		
	530 nm OSI 5-E-10M/10K	2.0	2.5		
Transimpedance Gain			10M		ohm
Supply Voltage	No load resistor	$\pm$ 4.5		$\pm$ 18	V
Supply Current			0.4	1.0	mA
Power Supply Rejection Ratio			7	63	μ V/V
Bandwidth			Upper 3 dB point		KHz
Rise Time	No Load Capacitor		30	40	μ S
Fall Time			30	40	μ S
Dark Voltage Temp. Coefficient	Between 20° & 50°C		150	500	μ V/C

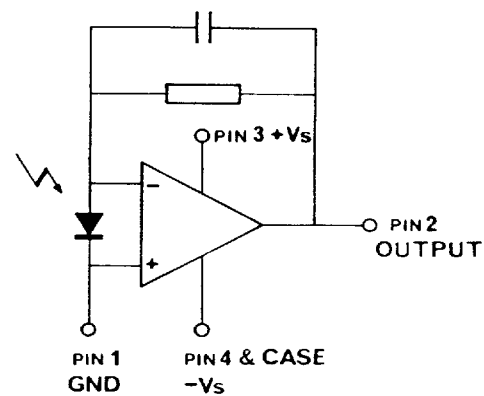
- Notes: 1) Relative response of 1 on the spectral response curve corresponds to 5.8 V/ μ W
 2) The OSI 5-IR-10M/10K is equivalent to the previously designated OSI 5K.

Centronic Limited, 267, King Henry's Drive, New Addington, Croydon, U.K. CR9 0BG

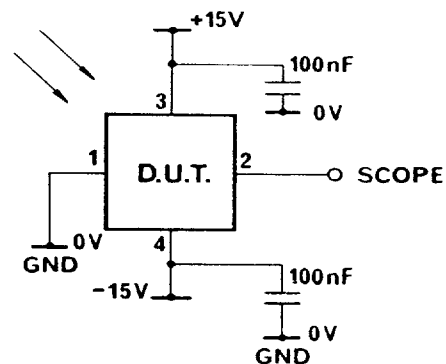
Telephone: (0689) 842121 Fax: (0689) 845117



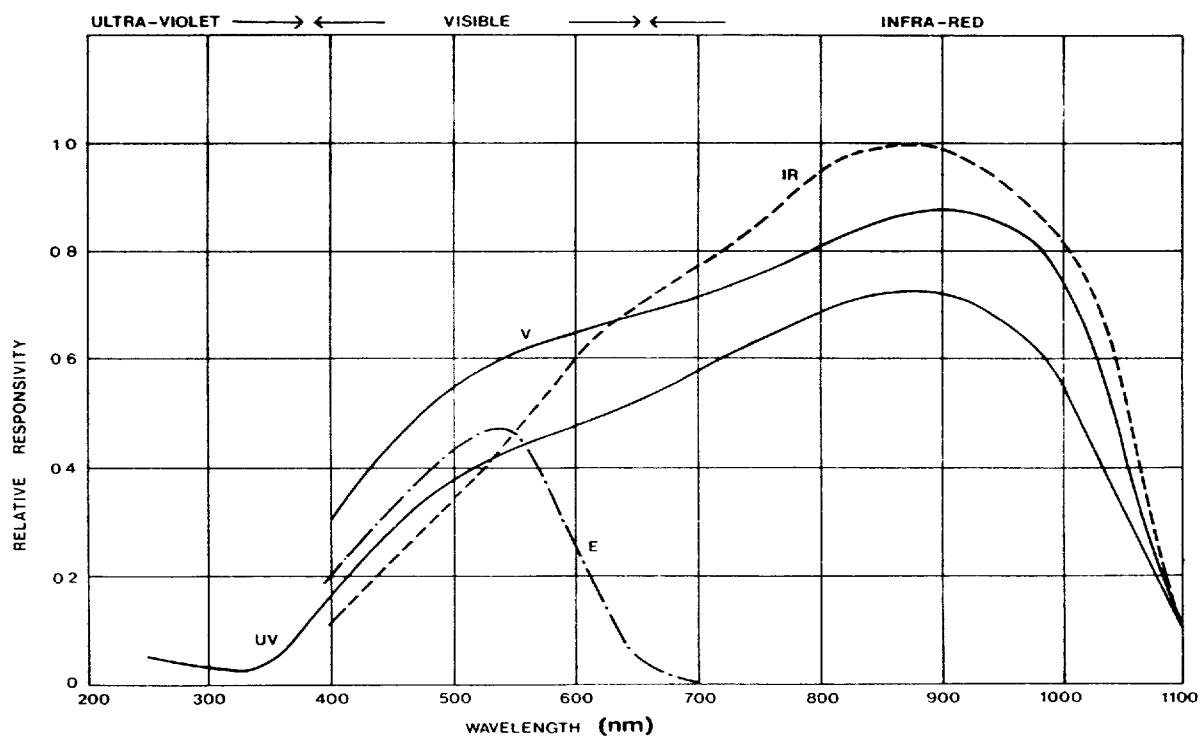
Package Diagram



Internal Circuit



Test Circuit



Relative Spectral Response Curves