

Silicon Photodiodes

NEW

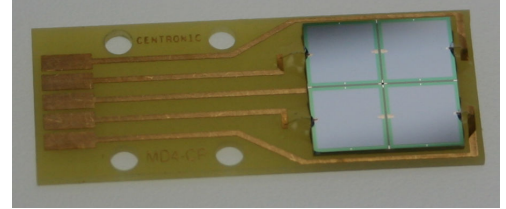
CHARGED PARTICLE DETECTOR

MD4 (15)-CP

Centronic charged particle detectors are silicon diodes fabricated with a specially minimized dead layer to ensure maximum charge is deposited in the depletion region of the device.

For electron detection in microscopy applications a quadrant geometry is offered with a 140 μ m diameter hole through which the primary electron beam can pass.

Customer specific geometries, active area configuration and hole dimension can be specified for prototype and production quantities.



Applications

SEM Backscattered Electron Detection
STEM Detector
Electron beams 1keV-30keV

General ratings/Absolute maximum ratings

	Max. Rating
Reverse Voltage	5V
Storage Temperature Range	-55°C to +125°C
Operating Temperature Range	-55°C to +120°C
Soldering Temperature Range	200°C

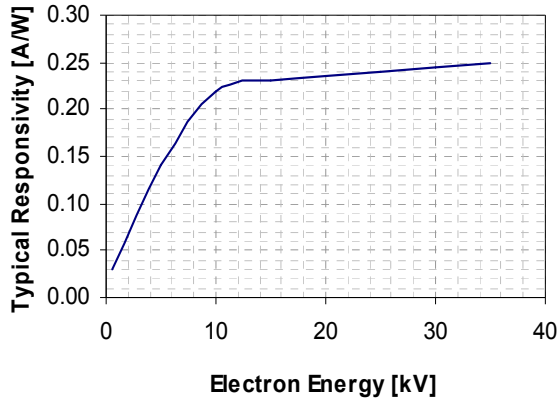
Electrical/Optical characteristics (measured at 22°C (± 2) ambient unless otherwise stated)

Type No.	Active Area		Spectral Responsivity [A/W] $\lambda_p = 900 \text{ nm}$ Typ.	Dark Current (5V) Per element [nA]		Capacitance Per element [pF]		Package
	mm ²	Sep (mm)		Max.	Typ.	Vr = 5V Max.	Vr = 5V Typ.	
MD4(15)-CP	15	0.5	0.45	10	1.0	-	300	PCB

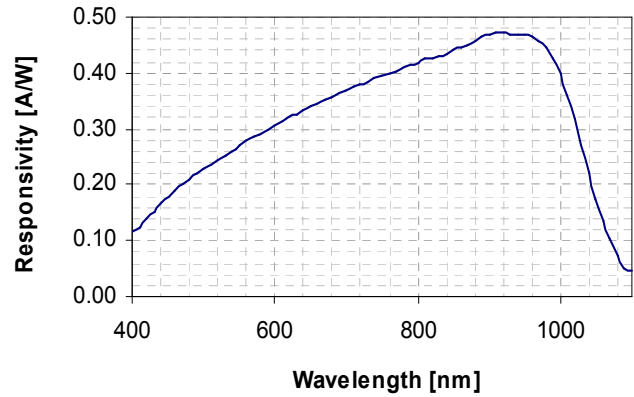
CHARGED PARTICLE DETECTOR

MD4 (15)-CP

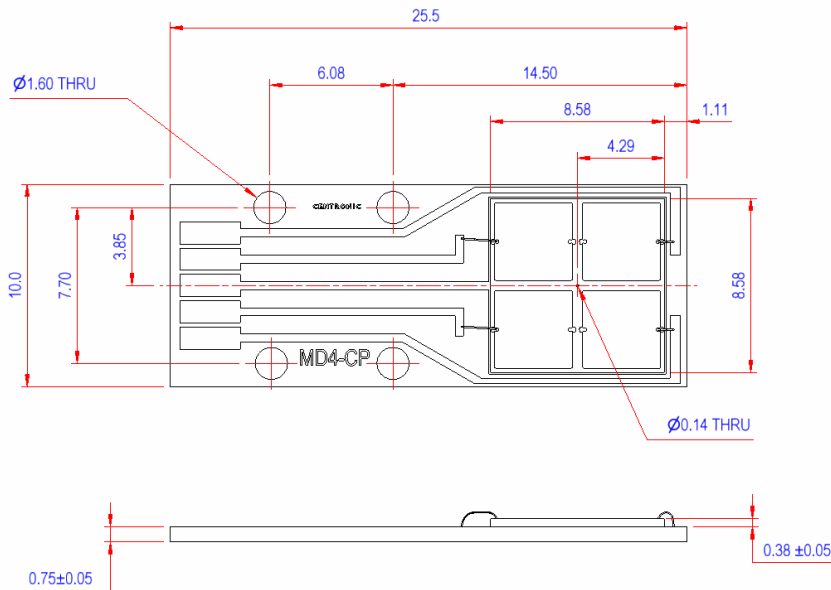
Typical Electron Response versus electron energy:



Typical Spectral Response versus wavelength:



Dimensional Outline



Dimensions: mm



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

CENTRONIC LTD
 King Henry's Drive
 Croydon
 Surrey
 CR9 0BG
 United Kingdom

Telephone: +44 (0) 1689 808055
 Email: eosales@centronic.co.uk
 Facsimile: 01689 845117
 Web: www.centronic.co.uk

CENTRONIC LLC
 16203 Park Row
 Suite 110
 Houston
 TX 777084
 United States

Telephone: +1 (281) 578 7900
 Email: info@centronic.us
 Web: www.centronic.us



FM25100



EMS68441