



ExMOD

Magneto-Optical Static Event Detector

A resettable nonpowered static event detector on a chip that provides a unique way of detecting ESD events for products being handled through the manufacturing process.

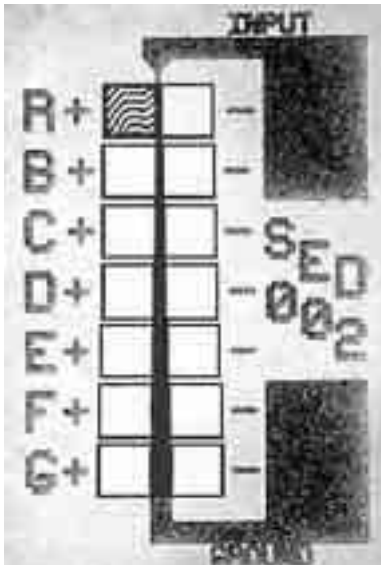
ESD Detection Applications

- Transients in an IC Test Handler
- Transients during Magneto Resistive (MR) head processing
- Product handling tools and equipment
- Real-time board level IC performance monitoring

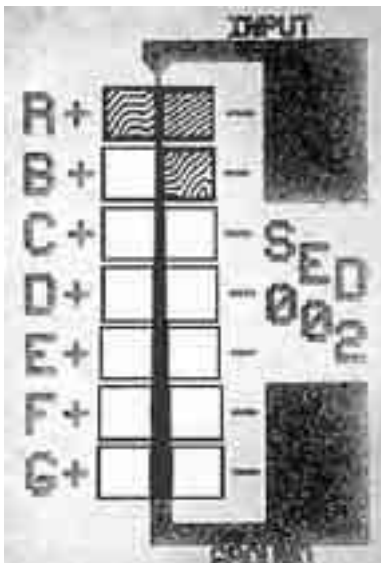


Features

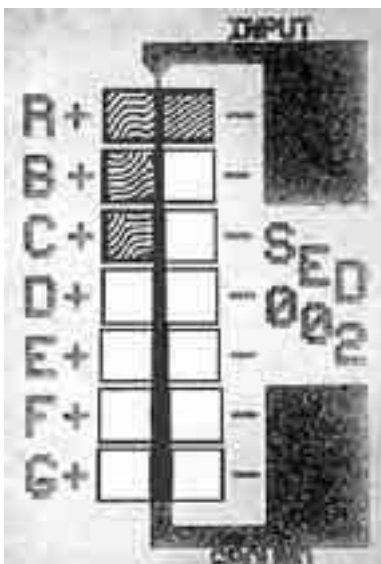
- *Resettable:* The device can be reset as many times as desired so long as the current remains below protection level.
- *Static Memory:* The device remains permanently switched after an ESD event until reset. Alternatively, the device can be observed continuously to record the time and threshold of the event.
- *Small Size:* The die can be as small as 500 μ m x 750 μ m.
- *External Readout:* The device can be read without physical contact, using a polarizing microscope/optical system.
- *External Reset:* The sensing device can be reset with an external noncontact device.
- *Solid State:* Operates at extreme temperatures and environments.
- *Fast Switching:* Provides discharge detection of fast ESD pulses generated by HBM, CDM, and MM events.
- *Polarity Sensitivity:* The device can distinguish the polarity of the ESD event.
- *Sensitivity Levels:* High or low threshold devices will be available.
- *Pulse Resolution:* Device can detect ESD events down to 300mA.
- *Custom Configuration:* Available for customer specific applications with associated engineering development.
- *Packages:* The device is compatible with numerous packaging schemes such as SMT packages, chip scale packages, and through-hole packages.



+500V Pulse



+500V, -750V Pulse



+1000V, -500V Pulse

Specifications

Standard*

Voltage Levels (Volt)

A	500
B	750
C	1000
D	1250
E	1500
F	1750
G	2000

Current Levels (Amp)

A	.300
B	.500
C	.700
D	.800
E	.900
F	1.100
G	1.300

Protection Level

1

Voltage (Volt)

>2500

Current (Amp)

>1.7

Impedance (Ohm)

3.5

Accuracy and Repeatability (%)

±20

Measurement Speed (ns)

<1

Polarity Sensitivity

Yes

Pixel Size (µm)

70 x 70

Die Size (µm)

500 x 750

Operating Temperature (°C)

-50 to +150

Storage Temperature (°C)

-100 to +350

Package Options

Die, SMT, Through-hole

Readout

Optical

Reset

Noncontact

Note: In accordance with IEC801 (1500Ω load resistor).

* Based on HBM testing and target performance values for present detector configuration.



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