

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



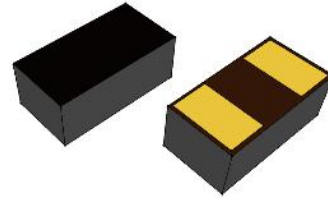
PLED

Product data sheet

**Features**

- Ultra-Low capacitance:0.05pF(typ.)
- Low leakage current(<10nA)
- Fast response time(<1ns)
- Bi-directional, single line protection
- IEC 61000-4-2 (ESD Air): 15kV  
IEC 61000-4-2 (ESD Contact): 8kV

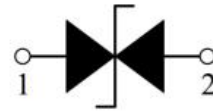
**Pin Description**



**Applications**

- USB 3.0/3.1
- HDMI 1.3/1.4/2.0
- RF Antenna
- SATA and eSATA Interface

**Schematic Diagram**



**Order Information**

Type	Package	Size (mm)		
MSPESD04DMA12	0402	1.00x0.52x0.38	7" T&R	10,000

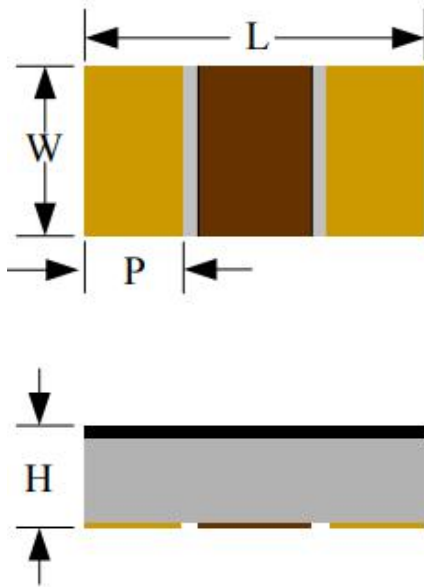
**Limiting Values(T<sub>A</sub> = 25 °C, unless otherwise specified)**

Symbol	Parameter	Conditions	Min	Max	Unit
V <sub>ESD</sub>	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	-	8	kV
		IEC 61000-4-2; Air Discharge	-	15	kV
T <sub>A</sub>	Operating Temperature Range	-	-55	125	°C
T <sub>stg</sub>	Storage Temperature Range	-	-40	85	°C

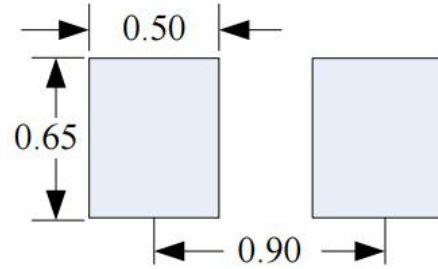
**Electrical Characteristics(T<sub>A</sub> = 25 °C unless otherwise specified)**

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V <sub>DC</sub>	Continuous Operating Voltage	-	-	-	12.0	V
V <sub>T</sub>	Trigger Voltage	IEC61000-4-2 8kV contact discharge	-	450	-	V
V <sub>C</sub>	Clamping Voltage	IEC61000-4-2 8kV contact discharge	-	40	-	V
I <sub>L</sub>	Leakage Current	DC 12V shall be applied on component	-	-	10	nA
C <sub>J</sub>	Capacitance	Measured at 10MHz	-	0.05	-	pF

**Package Dimension**



**Recommended Solder Pad Footprint**



**\*Sizes in mm**

Notes:

This solder pad layout is for reference purposes only.

Dimension	Unit: Millimeters	
	Min.	Max.
L	0.90	1.10
W	0.42	0.62
P	0.15	0.35
H	0.25	0.45

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