

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

PESD0402MS12-MS

Product specification

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


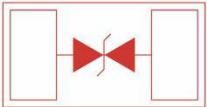
MACHANICAL DATA

- 0402
- Packaging: Tape and Reel
- Reel size: 7 inch
- 10000PCS/Reel

APPLICATIONS

- USB 3.0/3. 1
- HDMI 1.3/ 1.4/2.0
- RF Antenna
- SATA and eSATA Interface

Reference News

PACKAGE OUTLINE	PIN CONFIGURATION
	
0402	

Limiting Values(TA = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
VESD	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	-	8	kV
		IEC 61000-4-2; Air Discharge	-	15	kV
TA	Operating Temperature Range	-	-55	125	°C
Tstg	Storage Temperature Range	-	-40	85	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
VDC	Continuous Operating Voltage	-	-	-	12	V
VT	Trigger Voltage	IEC61000-4-2 8kV contact discharge	-	450	-	V
VC	Clamping Voltage	IEC61000-4-2 8kV contact discharge	-	40	-	V
IL	Leakage Current	DC 12V shall be applied on component	-	-	10	nA
CJ	Capacitance	Measured at 10MHz	-	0.05	-	pF

Typical Characteristics

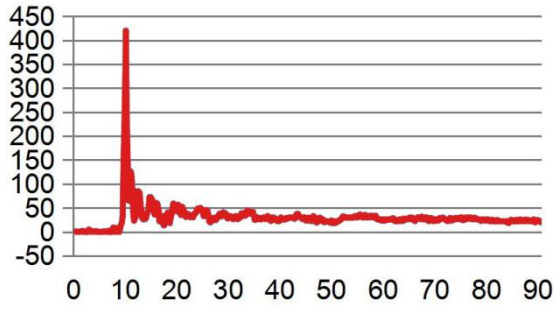


Fig. 1 Typical ESD Response
(IEC 61000-4-2, 8kV contact discharge)

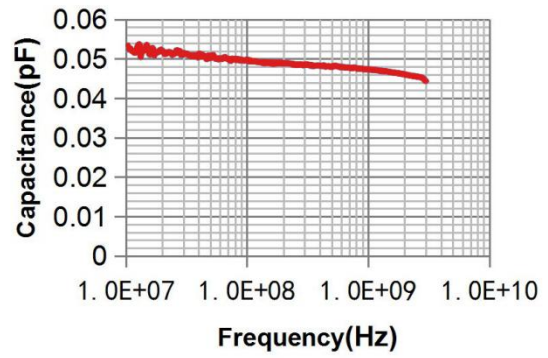


Fig.2 Typical Device Capacitance VS. Frequency

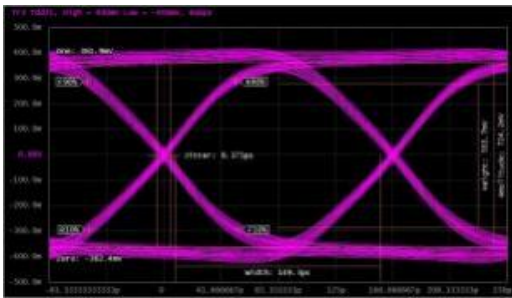
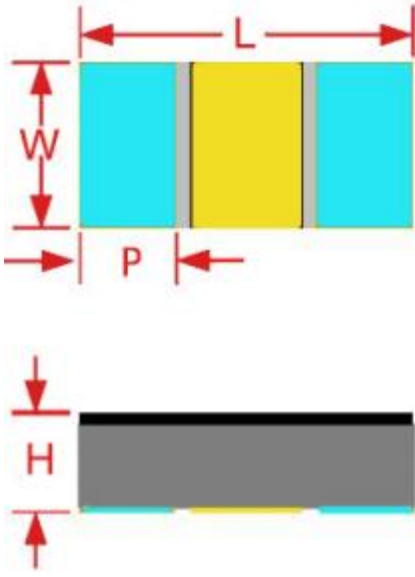
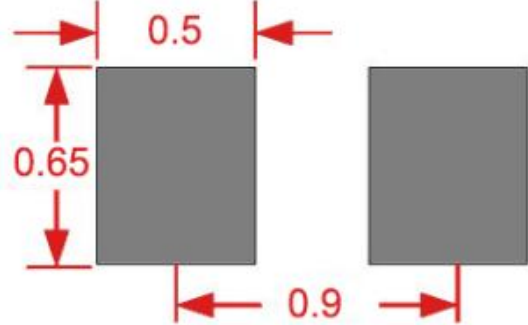


Fig.3 HDMI 2.0 Mask at 6.0 Gbps

PACKAGE MECHANICAL DATA



Recommended Solder Pad Footprint



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

REEL SPECIFICATION

P/N	PKG	QTY
PESD0402MS12-MS	0402	10000

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