MSKSEMI 美森科



ESD











PLED

TVS

TSS

MOV

PESD0603MS03-MS

Product specification





SEMICONDUCTOR

FEATURES

- Ultra-Low capacitance:0.05pF(typ.)
- Low leakage current(<100nA)
- Fast response time(<1ns)
- Bi-directional, single line protection
- IEC 61000-4-2 (ESD Air): 15kV

IEC 61000-4-2 (ESD Contact): 8kV

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
0603	



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

Symbol	Parameter	Conditions	Min	Мах	Unit
V _{ESD} Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	-	8	kV	
	IEC 61000-4-2; Air Discharge	-	15	kV	
TA	Operating Temperature Range	-	-40	90	°C
Tstg	Storage Temperature Range	-	-55	125	°C

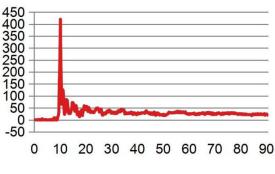
ELECTRICAL CHARACTERISTICS (Tamb=25℃)

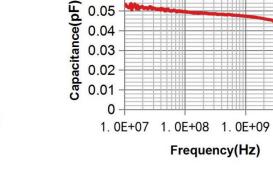
Symbol	Parameter	Conditions	Min	Тур.	Max	Unit
VDC	Continuous Operating Voltage	-	-	-	3.3	V
Vτ	Trigger Voltage	IEC61000-4-2 8kV contact discharge	-	450	-	V
Vc	Clamping Voltage	IEC61000-4-2 8kV contact discharge	-	40	-	V
١L	Leakage Current	DC 3.3V shall be applied on component	-	-	100	nA
CJ	Capacitance	Measured at 10 MHz	-	0.05	-	pF



1.0E+10







0.06

0.05

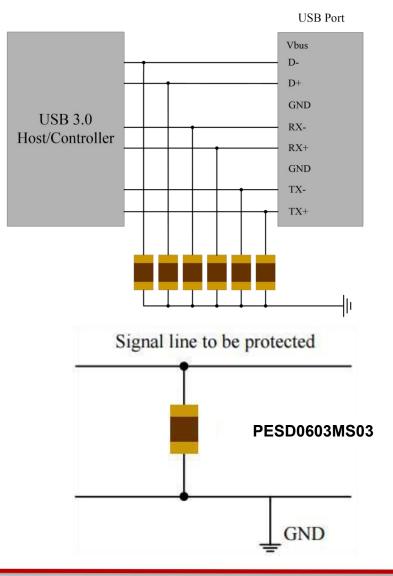
Fig. 1 Typical ESD Response (IEC 61000-4-2, 8kV contact discharge)

Fig.2 Typical Device Capacitance VS. Frequency

ESD Protection for Signal Line

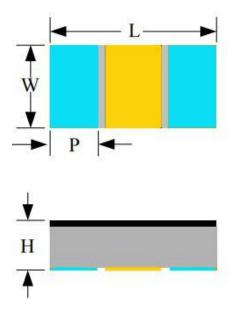
The PESD is designed for the protection of one bidirectional data line from ESD damage.

- Place the PESD as close to the input terminal or connector as possible.
- Minimize the path length between the PESD and the protected signal line.
- Use ground planes whenever possible.

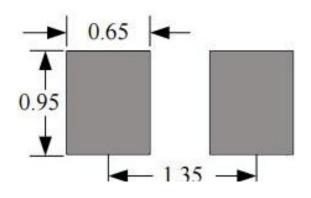


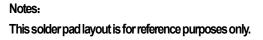


PACKAGE MECHANICAL DATA



Recommended Solder Pad Footprint





Dimension	Unit: Millimeters		
	Min	Max	
L	1.45	1.75	
W	0.70	0.95	
Р	0.20	0.50	
Н	0.26	0.46	

REEL SPECIFICATION

P/N	PKG	QTY
PESD0603MS03-MS	0603	5000



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