# MSKSEMI 美森科















ESD

MOV

GDT

PLED

# PESD0603MS30-MS

**Product specification** 





#### **FEATURES**

- Ultra-Low capacitance:0.05pF(typ.)
- Low leakage current(<100nA)</li>
- Fast response time(<1ns)</li>
- 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	



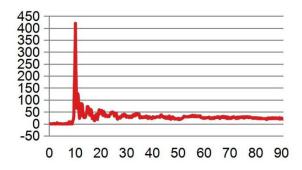
# Limiting Values(TA = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
Flootrostatio Discharge Voltage		IEC 61000-4-2; Contact Discharge	-	8	kV
V <sub>ESD</sub> Electrostatic Discharge Voltage	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	-	-	-	30	V
VT	Trigger Voltage	IEC61000-4-2 8kV contact discharge	-	450	-	V
Vc	Clamping Voltage	IEC61000-4-2 8kV contact discharge	-	40	-	V
lL	Leakage Current	DC 30V shall be applied on component	-	-	100	nA
Сл	Capacitance	Measured at 10MHz	-	0.05	-	pF





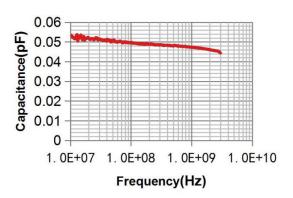


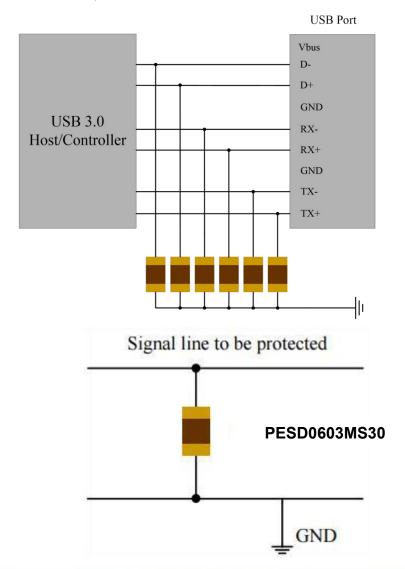
Fig. 1 Typical ESD Response (IEC 61000-4-2, 8kV contact discharge)

Fig.2 Typical Device Capacitance VS. Frequency

### **ESD Protection for Signal Line**

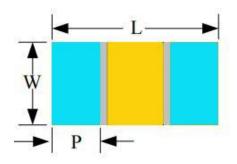
The PESD is designed for the protection of one bidirectional data line from ESD damage.

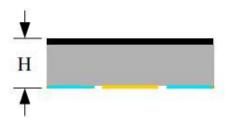
- Place the PESD as close to the input terminal or connector as possible.
- Minimize the path length between the PESD and the protected signal line.
- Use ground planes whenever possible.



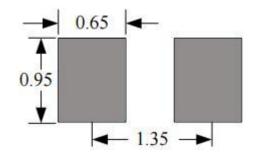


## PACKAGE MECHANICAL DATA





## **Recommended Solder Pad Footprint**



**ONotes:** 

This solder pad layout is for reference purposes only.

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
PESD0603MS30-MS	0603	5000



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