



Product data sheet

www.msksemi.com





Semiconductor

Compiance

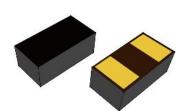
Features

- 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

Applications

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

Order Information



Schematic Diagram

Pin Description



Туре	Package	Size (mm)	Delivery Form	Delivery Quantity
MSPESD04DMA16	0402	1.00x0.52x0.38	7" T&R	10,000

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

Symbol	Parameter	Conditions		Max	Unit
V _{ESD}	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge		8	kV
		IEC 61000-4-2; Air Discharge	-	15	kV
T _A	Operating Temperature Range	-	-55	125	°C
T _{stg}	Storage Temperature Range	-	-40	85	°C

Electrical Characteristics(T_A = 25 °C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Тур.	Max	Unit
V _{DC}	Continuous Operating Voltage	-	-	-	16.0	V
VT	Trigger Voltage	IEC61000-4-2 8kV contact	-	450	-	V
		discharge				
Vc	Clamping Voltage	IEC61000-4-2 8kV contact	-	40	-	v
		discharge				
١L	Leakage Current	DC 16V shall be applied	-	-	10	nA
		on component				
CJ	Capacitance	Measured at 10MHz	-	0.05	-	pF

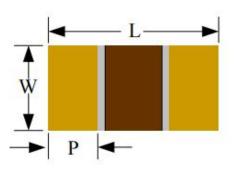


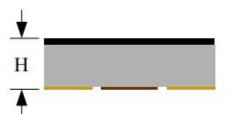
MSPESD04DMA16

Semiconductor

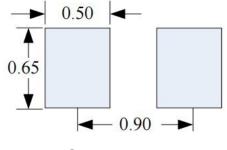
Compiance

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	
Р	0.15	0.35	
Н	0.25	0.45	



Semiconductor Compiance

Attention

■ Any and all MSKSEMI Semiconductor products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your MSKSEMI Semiconductor representative nearest you before using any MSKSEMI Semiconductor products described or contained herein in such applications.

■ MSKSEMI Semiconductor assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications f any and all MSKSEMI Semiconductor products described orcontained herein.

■ Specifications of any and all MSKSEMI Semiconductor products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer's products or equipment.

■ MSKSEMI Semiconductor. strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with someprobability. It is possible that these probabilistic failures could give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents or events cannot occur. Such measures include but are not limited to protective circuits anderror prevention circuits for safedesign, redundant design, and structural design.

■ In the event that any or all MSKSEMI Semiconductor products (including technical data, services) described or contained herein are controlled under any of applicable local export control laws and regulations, such products must not be exported without obtaining the export license from theauthorities concerned in accordance with the above law.

■ No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or any information storage or retrieval system, or otherwise, without the prior written permission of MSKSEMI Semiconductor.

■ Information (including circuit diagrams and circuit parameters) herein is for example only ; it is not guaranteed for volume production. MSKSEMI Semiconductor believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

■ Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. Whendesigning equipment, referto the "Delivery Specification" for the MSKSEMI Semiconductor productthat you intend to use.