

# Product data sheet

www.msksemi.com



#### FEATURES

♦ IEC61000-4-2 (ESD) ±8kV (Contact)

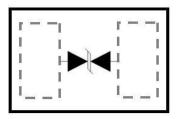
±15kV (Air)

- ♦ IEC61000-4-5 (Lighting) 3A (8/20µs)
- ♦ 100 Watts Peak Pulse Power (tp=8/20µs)
- ♦ Working voltages : 24V
- ♦ Low clamping voltage
- ♦ Low leakage current

#### **MACHANICAL DATA**

- ♦ DFN1006 package
- ♦ Flammability Rating: UL 94V-0
- ♦ Packaging: Tape and Reel
- ♦ Reel size: 7 inch

## PIN CONFIGURATION



#### **APPLICATIONS**

- Serial and Parallel Ports
- Notebooks, Desktops, Servers
- ♦ Projection TV
- Cellular handsets and accessories
- Portable instrumentation
- ♦ Peripherals

ABSOLUTE MAXIMUM RATING				
Symbol	Parameter	Value	Units	
V	ESD per IEC 61000-4-2 (Contact)	±8	kV	
V <sub>ESD</sub>	ESD per IEC 61000-4-2 (Air)	±15	κv	
P <sub>PP</sub>	Peak Pulse Power (8/20µs)	150	W	
T <sub>OPT</sub>	Operating Temperature	-55 ~ +125	°C	
T <sub>STG</sub>	Storage Temperature	-55 ~ +150	°C	
TL	Lead Soldering Temperature	260 (10 sec.)	°C	



DFN1006



MSESD10EMC24

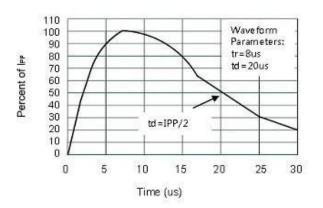
Semiconductor Compiance

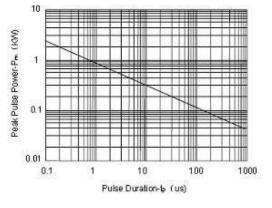
HF

ROHS

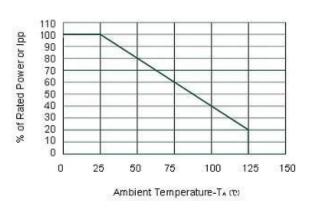
ELECTRICAL CHARACTERISTICS (Tamb=25°C)						
Symbol	Parameter	Test Condition	Min	Тур	Мах	Units
V <sub>RWM</sub>	Reverse Working Voltage				24	V
V <sub>BR</sub>	Reverse Breakdown Voltage	I <sub>T</sub> = 1mA	26		32	V
I <sub>R</sub>	Reverse Leakage Current	$V_{RWM} = 24V$			1	μA
V <sub>C1</sub>	Clamping Voltage 1	I <sub>PP</sub> = 1A, t <sub>p</sub> = 8/20µs			40	V
V <sub>C2</sub>	Clamping Voltage 2	$I_{PP} = 3A, t_p = 8/20 \mu s$			50	V
CJ	Junction Capacitance	$V_R = 0V$ , f = 1MHz		8		pF

#### **ELECTRICAL CHARACTERISTICS CURVE**









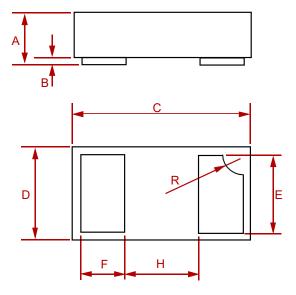
Non-Repetitive Peak Pulse Power vs. Pulse Time



MSESD10EMC24 HF

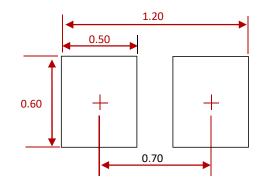
Semiconductor Compiance

#### PACKAGE MECHANICAL DATA



Dim	Inches		Millimeters		
Dim	MIN	MAX	MIN	МАХ	
А	0.0125	0.02	0.32	0.52	
В	0.000	0.002	0.00	0.05	
С	0.037	0.043	0.95	1.080	
D	0.022	0.027	0.55	0.680	
E	0.016	0.024	0.40	0.60	
F	0.008	0.012	0.20	0.30	
н	0.01	5Тур.	0.40	Тур.	
R	0.001	0.005	0.05	0.15	

## **Suggested Pad Layout**



NOTES:

- 1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
- 2. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

#### **REEL SPECIFICATION**

P/N	PKG	QTY
MSESD10EMC24	DFN1006	10000



#### 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 of any andall 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, refer to the "Delivery Specification" for the MSKSEMI Semiconductor productthat you intend to use.

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for ESD Suppressors / TVS Diodes category:

Click to view products by MSKSEMI manufacturer:

Other Similar products are found below :

60KS200C D18V0L1B2LP-7B D5V0F4U5P5-7 NTE4902 P4KE27CA P6KE11CA P6KE39CA-TP P6KE8.2A JANTX1N6053A SA110CA SA60CA SA64CA SMBJ12CATR SMBJ33CATR SMBJ8.0A ESD101-B1-02ELS E6327 ESD105-B1-02EL E6327 ESD112-B1-02EL E6327 ESD119B1W01005E6327XTSA1 ESD5V0L1B02VH6327XTSA1 ESD7451N2T5G 19180-510 CPDT-5V0USP-HF 3.0SMCJ33CA-F 3.0SMCJ36A-F HSPC16701B02TP JANTX1N6126A JANTX1N6462 JANTX1N6465 USB50805e3/TR7 D3V3Q1B2DLP3-7 D55V0M1B2WS-7 DRTR5V0U4SL-7 SCM1293A-04SO ESD200-B1-CSP0201 E6327 SM12-7 SM1605E3/TR13 SMLJ45CA-TP CEN955 W/DATA 82350120560 VESD12A1A-HD1-GS08 CPDUR5V0R-HF CPDQC5V0U-HF CPDQC5V0USP-HF CPDQC5V0-HF D1213A-01LP4-7B ESD101-B1-02EL E6327 824500181 MMAD1108/TR13 5KP100A