



Product data sheet

www.msksemi.com





FEATURES

- ♦ IEC61000-4-2 Level 4 ESD Protection
- Protects one directional I/O line
- ♦ Low clamping voltage
- ♦ Working voltages : 15V
- ♦ Low leakage current

MACHANICAL DATA

- ♦ SOD-523 package
- ♦ Flammability Rating: UL 94V-0
- ♦ Packaging: Tape and Reel
- ♦ High temperature soldering guaranted:260 °C/10s
- ♦ Reel size: 7 inch

APPLICATIONS

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- ♦ Notebooks, Desktops, and Servers
- ♦ Portable Instrumentation
- ♦ Peripherals
- ♦ Pagers

| ABSOLUTE MAXIMUM RATING | | | | | | | |
|----------------------------------|---|------------|---------|--|--|--|--|
| Symbol | Parameter | Value | Units | | | | |
| V _{ESD} | ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact) | ±30 ±22 | kV | | | | |
| ESD | ESD Voltage per human body model ESD Voltage per machine model | 16 400 | kV V | | | | |
| PD | Total Power Dissipation on FR-5 Board (Note 1) @ Ta= 25° C | 150 | mW | | | | |
| T _{J,} T _{STG} | T _{STG} Junction and Storage Temperature | | °C | | | | |
| TL | T _L Lead Solder Temperature – Maximum (10 Second Duration) | | °C | | | | |

These ratings are limiting values above which the serviceability of the diode may be impaired Note 1. FR-5=1.0x0.75x0.62 in.

| ELECTRICAL CHARACTERISTICS (Tamb=25°C) | | | | | | | | | | | |
|--|-----------|-----------|----------------|---------|----------------|------|-----|------|-----|-----------------|------|
| | | V_{RWM} | I _R | V_{B} | Ι _Τ | V | /c | V | ′c | P _{PK} | CJ |
| P/N | MARKING | (V) | (µA) | (V) | (mA) | (V) | | (V) | | (W) | (pF) |
| | WARKING | Max | Max | Min | | Max | @A | Max | @A | Max | Max |
| ESD5Z15V | ZN + code | 15.0 | 0.50 | 16.0 | 1 | 23.0 | 1.0 | 30.0 | 4.0 | 120 | 28 |

PACKAGE OUTLINE



SOD-523

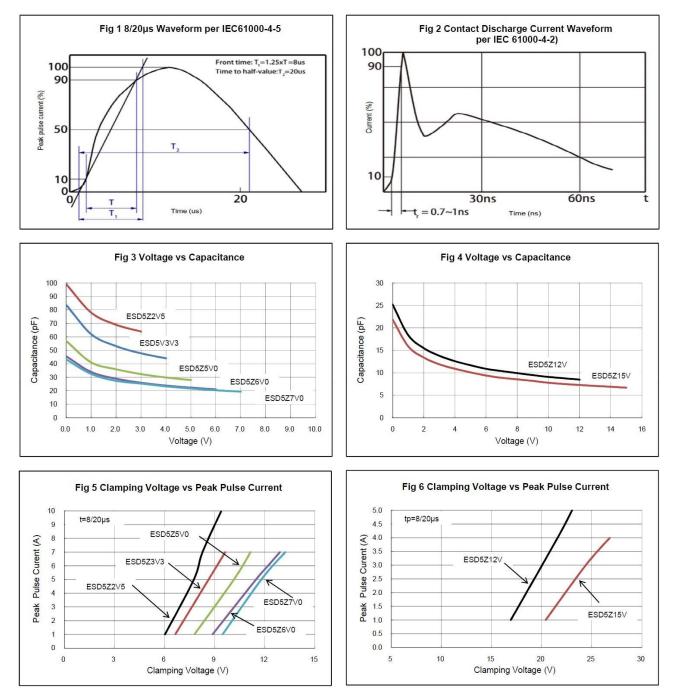
PIN CONFIGURATION

1 2



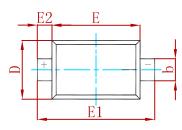


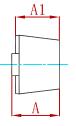
ELECTRICAL CHARACTERISTICS CURVE

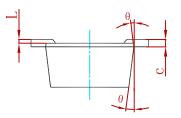




PACKAGE MECHANICAL DATA

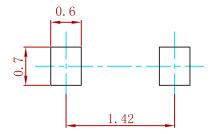






| Symbol | Dimensions | In Millimeters | Dimensions In Inches | | |
|--------|------------|----------------|----------------------|-------|--|
| Symbol | Min | Max | Min | Max | |
| A | 0.510 | 0.770 | 0.020 | 0.031 | |
| A1 | 0.500 | 0.700 | 0.020 | 0.028 | |
| b | 0.250 | 0.350 | 0.010 | 0.014 | |
| С | 0.080 | 0.150 | 0.003 | 0.006 | |
| D | 0.750 | 0.850 | 0.030 | 0.033 | |
| E | 1.100 | 1.300 | 0.043 | 0.051 | |
| E1 | 1.500 | 1.700 | 0.059 | 0.067 | |
| E2 | 0.200 REF | | 0.008 REF | | |
| L | 0.010 | 0.070 | 0.001 | 0.003 | |
| θ | 7° REF | | 7° REF | | |

Suggested Pad Layout



Note: 1.Controlling dimension:in millimeters. 2.General tolerance:±0.05mm.

3. The pad layout is for reference purposes only.

REEL SPECIFICATION

| P/N | PKG | QTY |
|----------|---------|------|
| ESD5Z15V | SOD-523 | 3000 |
| | | |





<u>Attention</u>

■ 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.

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