

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

ESD9B5V-MS

Product specification

FEATURES

- 80W peak pulse power per line (tP = 8/20µs)
- SOD-923 package
- Replacement for MLV(0402)
- Bidirectional configurations
- Response time is typically < 1ns
- Low clamping voltage
- RoHS compliant
- Transient protection for data lines to
IEC61000-4-2(ESD) ± 30KV(air), ± 30KV(contact)
IEC61000-4-4 (EFT) 40A (5/50ns)


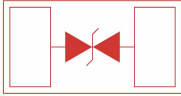
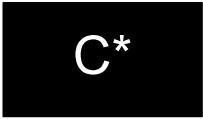
MACHANICAL DATA

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260 °C
- Device meets MSL 1 requirements
- Pure tin plating: 7 ~ 17 um
- Pin flatness:≤3mil

APPLICATIONS

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

Reference News

PACKAGE OUTLINE	PIN CONFIGURATION	Marking
		
<p>SOD-923</p>		

ABSOLUTE MAXIMUM RATING

Rating	Symbol	Value	Units
Peak Pulse Power (tp=8/20μs)	Ppp	80	W
Operating Temperature	TJ	-55 to + 150	°C
Storage Temperature	TSTG	-55 to + 150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25 °C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Reverse Working Voltage	VRWM				5	V
Breakdown Voltage	VBR	It = 1mA	5.6	6.7	7.8	V
Reverse Leakage Current	IR	VRWM=5V T=25C			1.0	A
Maximum Reverse Peak Pulse Current	IPP			5		A
Clamping Voltage	VC	IPP=1A			8	V
Clamping Voltage	VC	IPP=3A			13	V
Clamping Voltage	VC	IPP=5A			15	V
Junction Capacitance	Cj	VR=0V f = 1MHz		12	15	pF

ELECTRICAL CHARACTERISTICS CURVE

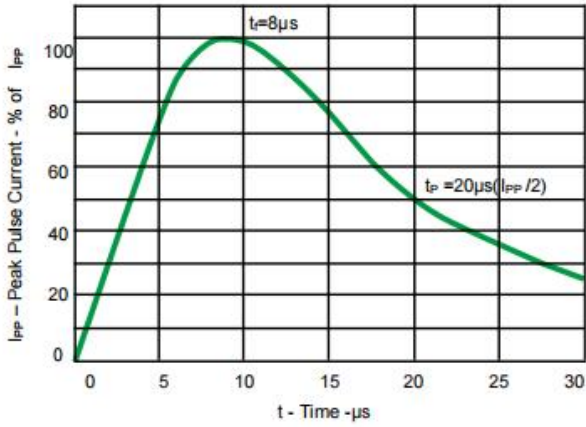


Fig 1. Pulse Waveform

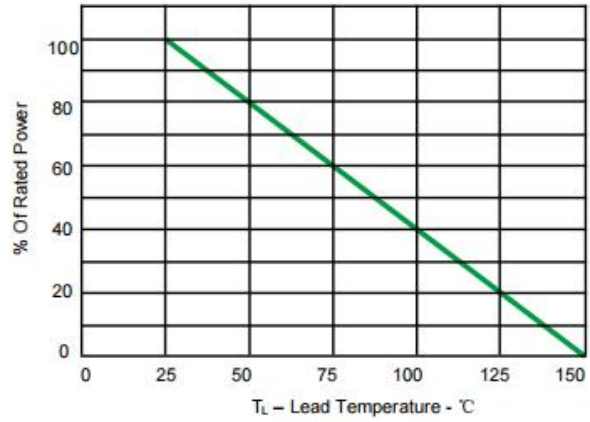


Fig 2. Power Derating Curve

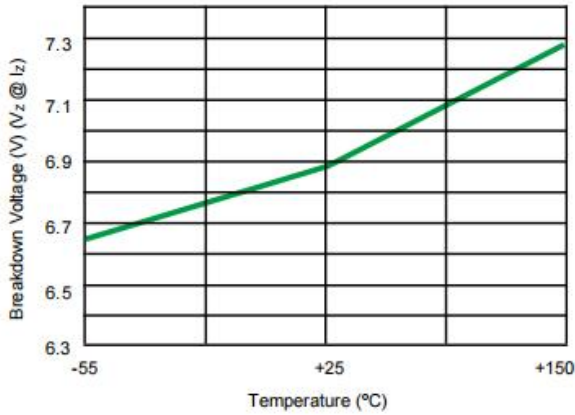


Fig 3. Typical Breakdown Voltage vs. Temperature

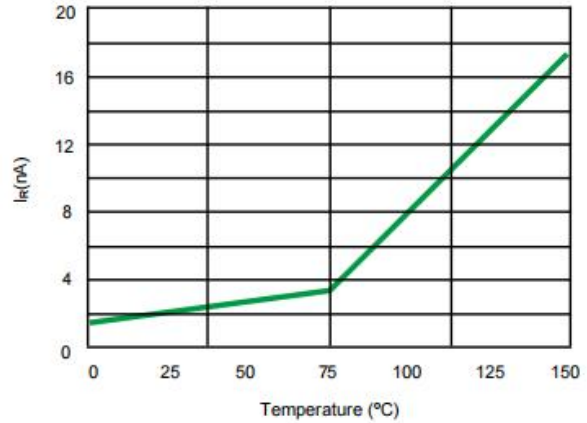


Fig 4. Typical Leakage Current vs. Temperature

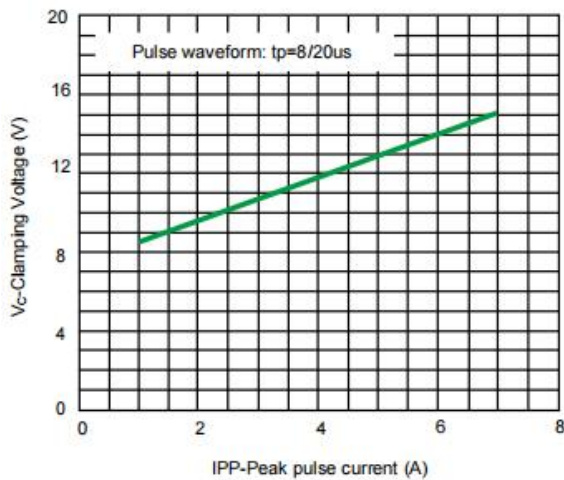


Fig 5. Clamping voltage vs. Peak pulse current

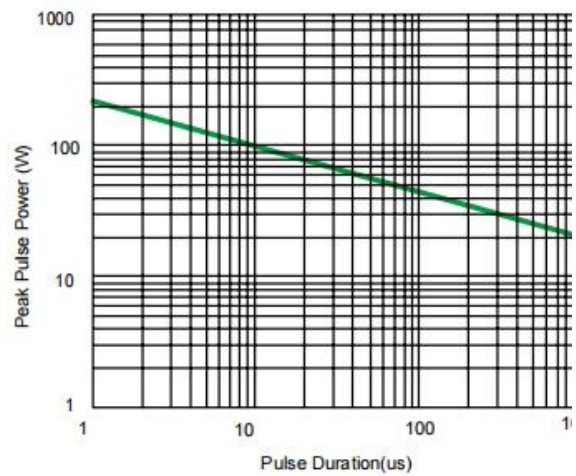
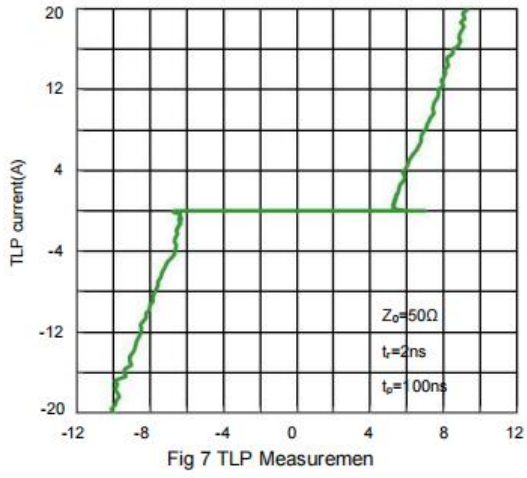
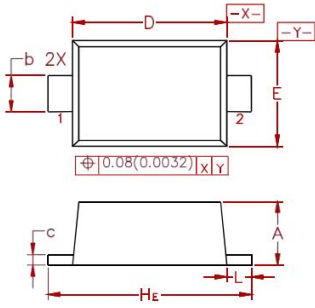


Fig 6. Non-Repetitive Peak Pulse Power vs. Pulse time

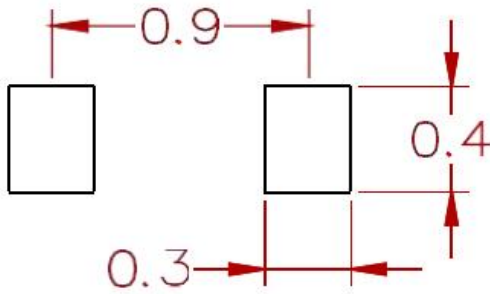


PACKAGE MECHANICAL DATA



Dim	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A	0.36	0.40	0.43	0.014	0.016	0.017
b	0.15	0.20	0.25	0.006	0.008	0.010
c	0.07	0.12	0.17	0.003	0.005	0.007
D	0.75	0.80	0.85	0.030	0.031	0.033
E	0.55	0.60	0.65	0.022	0.024	0.026
HE	0.95	1.00	1.05	0.037	0.039	0.041
L	0.05	0.10	0.15	0.002	0.004	0.006

Suggested Pad Layout



Dimensions: Millimeters

REEL SPECIFICATION

P/N	PKG	QTY
ESD9B5V-MS	SOD-923	8000

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 and all MSKSEMI Semiconductor products described or contained 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 some probability. 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 and error prevention circuits for safe design, 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 the authorities 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. When designing equipment, refer to the "Delivery Specification" for the MSKSEMI Semiconductor product that you intend to use.

单击下面可查看定价，库存，交付和生命周期等信息

[>>MSKSEMI\(美森科\)](#)