



PRODUCT DATA SHEET



To learn more about JGSEMI, please visit our website at



Datasheet



Resources

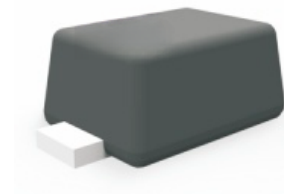


Samples

Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.jg-semi.cn. Please email any questions regarding the system integration to JINGAO_questions@jgsemi.com.

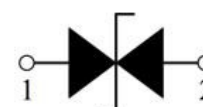
Features

- 2-pin lead-less package
- Ultra low clamping voltage
- Peak Pulse current (8/20 μ s) MAX : 8A
- IEC61000-4-2 (ESD) $\pm$ 30kV (air), $\pm$ 30kV (contact)
- Low leakage current
- Working voltages:12V
- RoHS Compliant


SOD-523

Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- Audio Players
- Keypads, Side Keys, LCD Displays

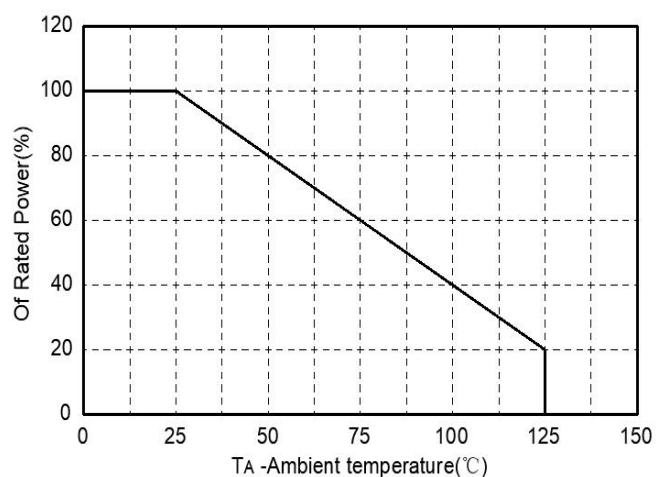
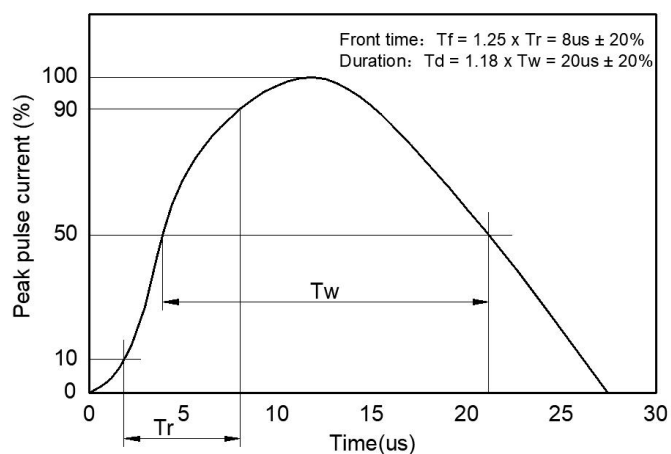
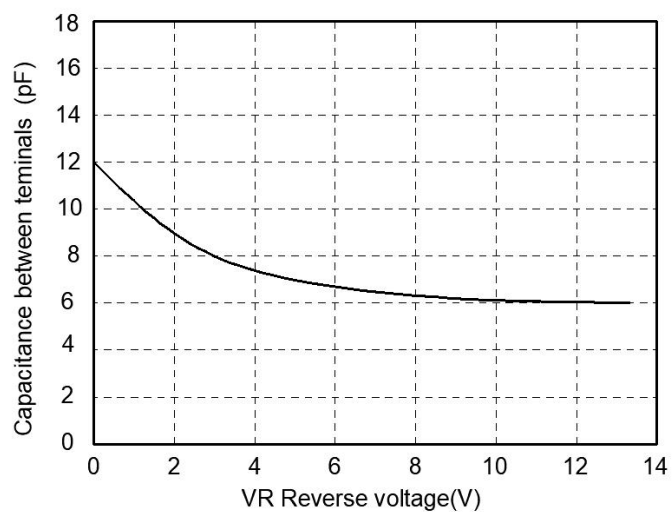
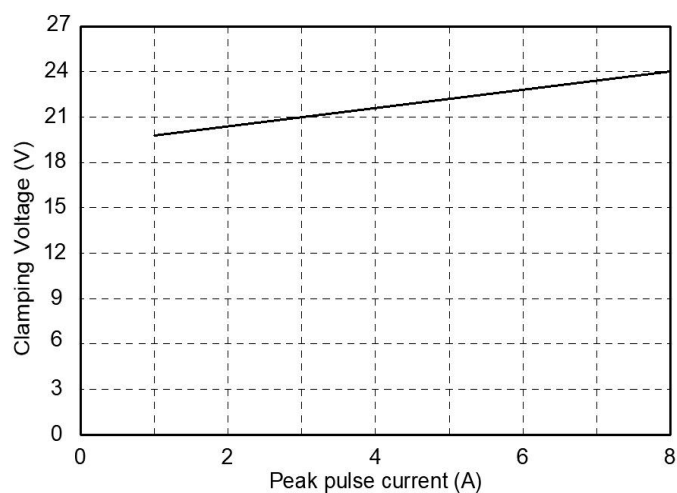


Absolute Maximum Ratings (T=25°C, RH=45%-75%, unless otherwise noted)

Parameters	Symbol	Value	Unit
ESD per IEC61000-4-2(Air)	V_{ESD}	$\pm$ 30	kV
ESD per IEC61000-4-2(Contact)		$\pm$ 30	
Peak Pulse Power (tp=8/20 μ s waveform)	P_{PP}	200	W
Peak Pulse current (8/20us)	I_{PP}	8	A
Maximum Junction temperature	T_J	-55-+125	°C
Storage temperature range	T_{STG}	-55-+150	°C

Electrical Characteristics (T=25°C, RH=45%-75%, unless otherwise noted)

Parameters	Test Condition	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage		V_{RWM}	-	-	12	V
Reverse Breakdown Voltag	$I_R=1mA$	V_{BR}	12.6	-	16	V
Reverse Leakage Current	$V_{RWM}=12V$	I_R	-	-	0.2	μ A
Clamping Voltage	$I_{PP} = 1A, T_P=8/20us$	V_C	-	-	22	V
Clamping voltage	$I_{PP} = 8A, T_P=8/20us$	V_C	-	-	25	V
Junction Capacitance	$V_R=0V, f=1MHz$	C_J	-	-	20	pF

FIG1: Power rating derating curve

FIG2: pulse Waveform

FIG3: Capacitance between teminals charateristics

FIG4: Clamping Voltage vs. Peak Pulse Current


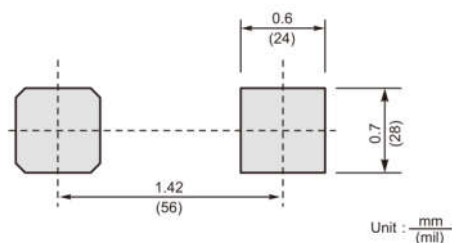
Package Dimensions

SOD-523

底视图
bottom view

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.51	0.77	20	30
e	0.25	0.35	10	14
C	0.08	0.15	3	6
D	1.10	1.30	43	51
E	0.75	0.99	30	39
HE	1.50	1.70	59	67
N	0.35ref		14ref	
L	0.2ref		8ref	
P	R0.1 ALL ROUND		R4.0 ALL ROUND	
∠	10°			

The recommended mounting pad size



Attention

1, Any and all JGSEMI 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 or material damage. Consult with your JGSEMI representative nearest you before using any JGSEMI products described or contained herein in such applications.

2, JGSEMI 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 JGSEMI products described or contained herein.

3, Specifications of any and all JGSEMI 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.

4, In the event that any or all JGSEMI 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.

5, 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 JGSEMI Semiconductor CO., LTD.

6, 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 JGSEMI product that you intend to use.