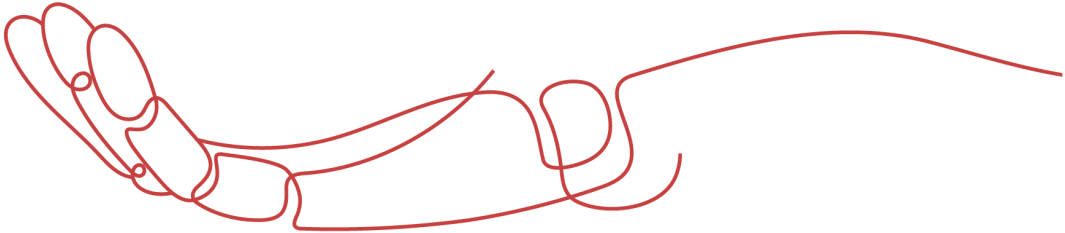




PRODUCT DATA SHEET



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

- 450W peak pulse power (8/20 μ s)
- Ultra low capacitance: 0.6pF typical
- Ultra low leakage: nA level
- Low operating voltage: 5V
- Low clamping voltage
- Protects one power line or data line
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ± 30 kV
 - Contact discharge: ± 30 kV
 - IEC61000-4-4 (EFT) 80A (5/50ns)
 - IEC61000-4-5 (Lightning) 18A (8/20 μ s)
- RoHS Compliant

Applications

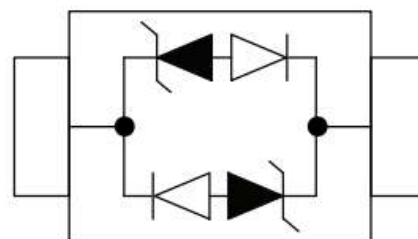
- USB Ports
- SIM Ports
- Smart Phones
- Wireless Systems
- Set-top box and digital TV
- Digital video interface (DVI)
- Ethernet 10/100/1000 Base T

Mechanical Characteristics

- Package: SOD-323
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below



SOD-323

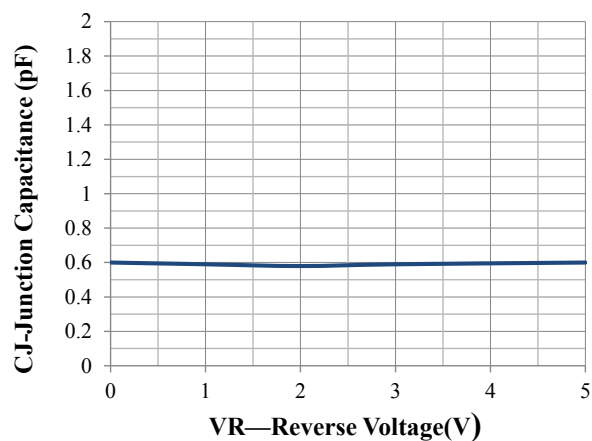
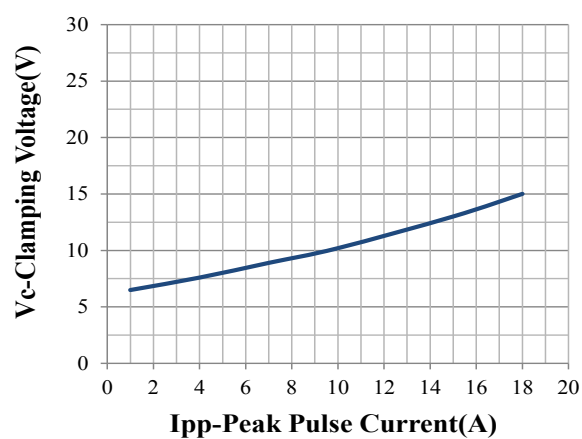
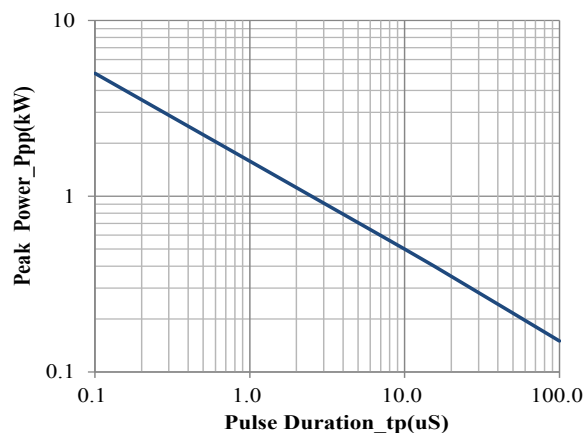
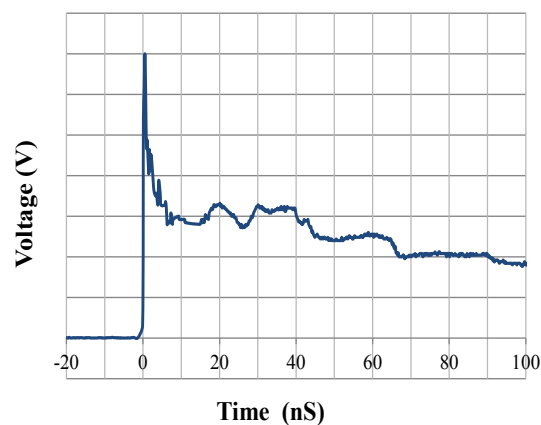
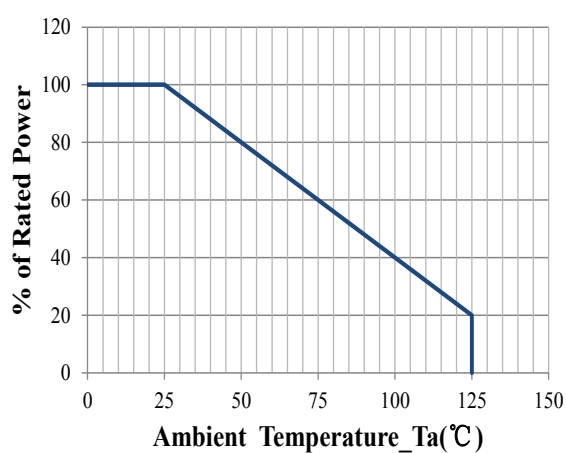
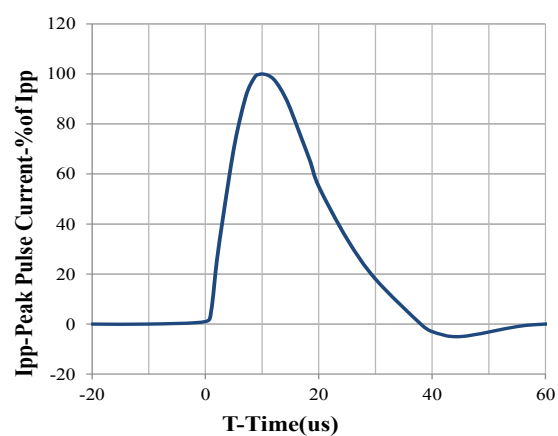


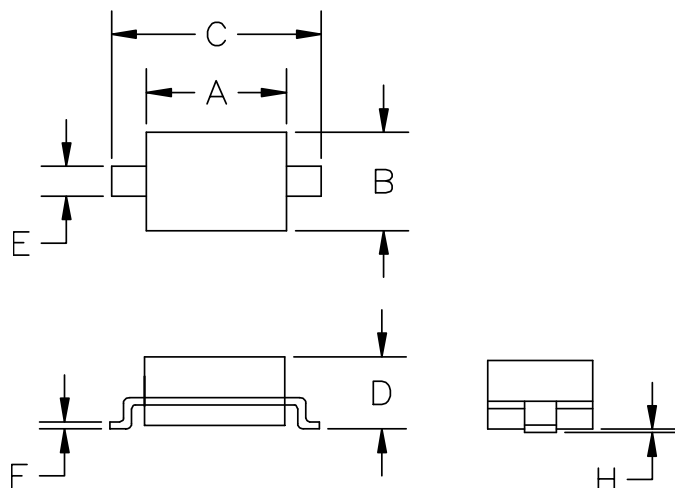
Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μ s)	P _{pp}	350	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	Kv
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STJ}	-55 to +150	°C

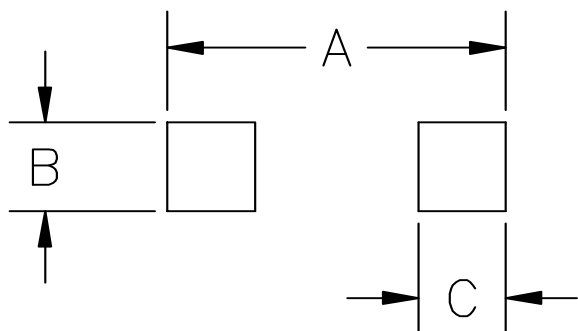
Electrical Characteristics(TA=25°C unless otherwise specified)

Part Number	V _{RWM} (V)	V _{BR} (V)	I _T (mA)	V _C @1A	V _C		I _R μA (Max)	C (Pf) (Typ.)
					(Max)	(@A)		
D5V0FA1B2WS-7	5	6	1	10	20	18	0.2	0.6

Typical Performance Characteristics (TA=25°C unless otherwise Specified)

Junction Capacitance vs. Reverse Voltage

Clamping Voltage vs. Peak Pulse Current

Peak Pulse Power vs. Pulse Time

IEC61000-4-2 Pulse Waveform

Power Derating Curve

8 X 20us Pulse Waveform

SOD-323 Package Outline & Dimensions


SYM	DIMENSIONS			
	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.50	1.80	0.060	0.071
B	1.20	1.40	0.045	0.054
C	2.30	2.80	0.090	0.107
D	-	1.10	-	0.043
E	0.30	0.40	0.012	0.016
F	0.10	0.25	0.004	0.010
H	-	0.10	-	0.004

Suggested Land Pattern


SYM	DIMENSIONS	
	MILLIMETERS	INCHES
A	3.15	0.120
B	0.80	0.031
C	0.80	0.031

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