Features
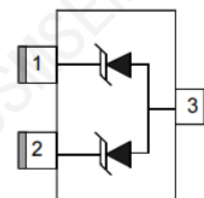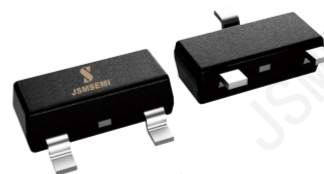
- 300 Watts peak pulse power(tp=8/20μs)
- Bidirectional and unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance(Cj=120 pF typ.)
- Protection two data lines
- IEC61000-4-2±30kV contact ±30kV air
- IEC61000-4-4(EFT) 40A (5/50ns)
- IEC61000-4-5(Lghtning) 20A (8/20μs)

SOT-23 (Top View)

Mechanical Data

- SOT-23 package
- Molding compound flammability rating:UL 94V-0
- Packaging:Tape and Reel
- RoHS/WEEE Compliant

Applications

- Dataline
- AutomaticTeller Machines
- Networks
- Powerline

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power(tp=8/20μs)	P_{PP}	300	Watts
Peak Pulse Current(tp=8/20μs)(note1)	Ipp	20	A
ESD per IEC61000-4-2(Air) ESD per IEC61000-4-2(Contact)	V_{ESD}	30 30	kV
Lead Soldering Temperature	TL	260(10seconds)	℃
Junction Temperature	TJ	-55to+125	℃
Storage Temperature	T_{stg}	-55to+125	℃

Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	IT=1mA	6.0	7.0	8.5	V
Reverse Leakage Current	IR	VRWM=5V,T=25℃		0.5	1	μA
Peak Pulse Current	I_{PP}	tp=8/20μs			20	A
Clamping Voltage	VC	IPP=10A,tp=8/20μs			12	V
		IPP=20A,tp=8/20μs			16	V
Junction Capacitance	Cj	VR=0V,f=1MHz (pin1、pin2topin3)		120		pF

Electrical Parameters (TA = 25°C unless otherwise noted)

Symbol	Parameter
IPP	Maximum Reverse Peak Pulse Current
VC	Clamping Voltage@IPP
VRWM	Working Peak Reverse Voltage
IR	Maximum Reverse Leakage Current@VRWM
VBR	Breakdown Voltage@IT
IT	Test Current

Note:. 8/20μs pulsewaveform.
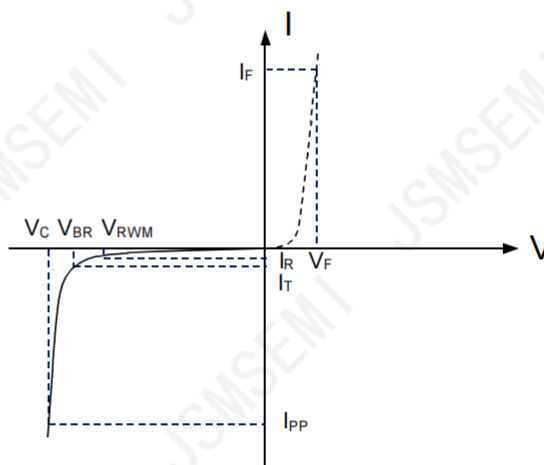
Typical Characteristics
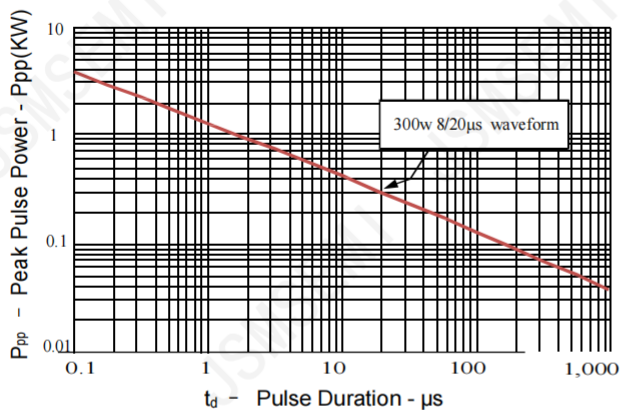
Figure 1: Peak Pulse Power vs. Pulse Time
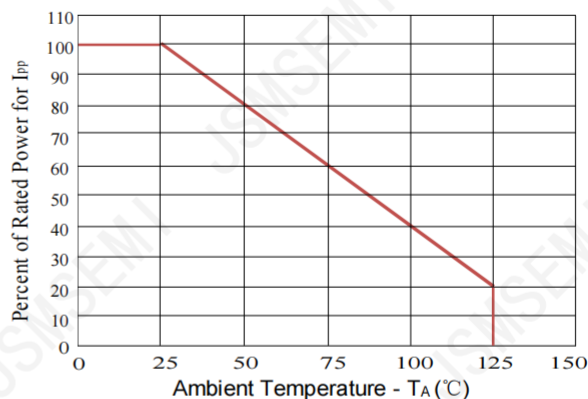

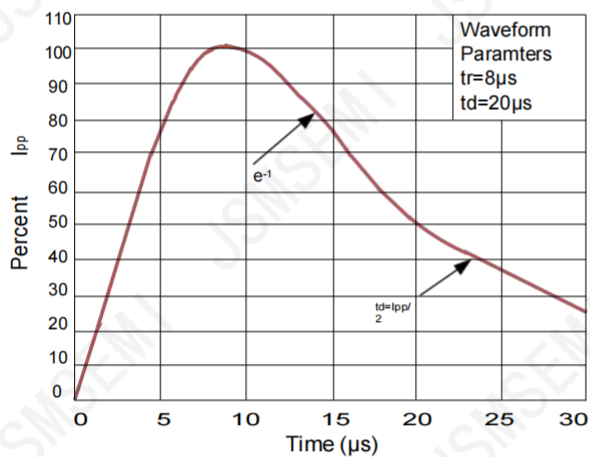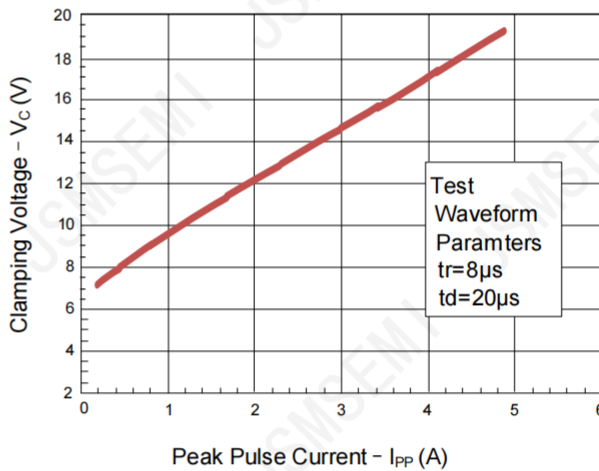**Figure 2: Power Derating Curve**

Figure3: Pulse Waveform

Figure 4: Clamping Voltage vs.Ipp

Outline Drawing – SOT-23
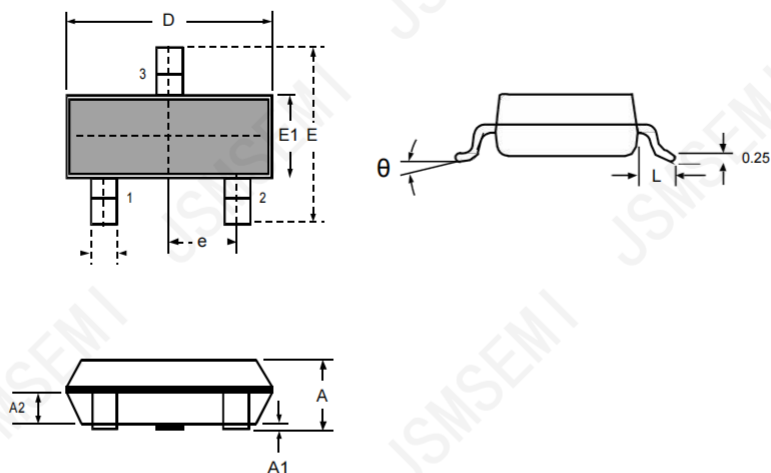
DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
D	2.800	3.000	0.110	0.118
b	0.300	0.500	0.012	0.020
E	2.250	2.550	0.089	0.100
E1	1.200	1.400	0.047	0.055
e	0.950 BSC		0.037 BSC	
L	0.300	0.500	0.012	0.020
θ	0	8°	0	8°

Revision History

Rev.	Change	Date
V1.0	Initial version	6/27/2021

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