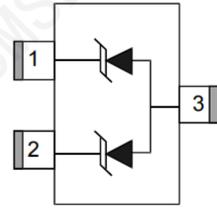


## Features

- 350 Watts peak pulse power( $t_p=8/20\mu s$ )
- Bidirectional and unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 30kV_c$  contact $\pm 30kV$  air
- IEC 61000-4-4(EFT) 40A(5/50ns)
- IEC 61000-4-5(Lightning)20A(8/20 $\mu s$ )



SOT-23 (Top View)

## Applications

- Dataline
- Automatic Teller Machines
- Networks
- Powerline

## MechanicalData

- SOT-23 package
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

## Absolute Maximum Rating

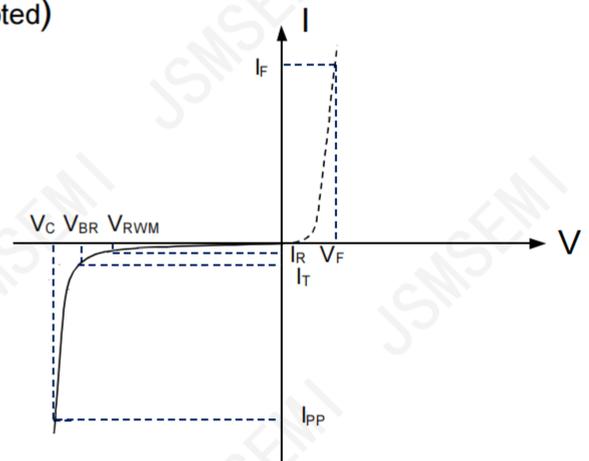
Rating	Symbol	Value	Units
Peak Pulse Power( $t_p=8/20\mu s$ )	$P_{PP}$	350	Watts
Peak Pulse Current( $t_p=8/20\mu s$ )(note1)	$I_{pp}$	20	A
ESD per IEC61000-4-2(Air) ESD per IEC61000-4-2(Contact)	$V_{ESD}$	30 30	kV
Lead Soldering Temperature	$T_L$	260(10seconds)	$^{\circ}C$
Junction Temperature	$T_J$	-55 to+ 125	$^{\circ}C$
Storage Temperature	$T_{stg}$	-55 to+ 125	$^{\circ}C$

**Electrical Characteristics**

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	$V_{RWM}$				3.3	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	4.0	6.5	8.0	V
Reverse Leakage Current	$I_R$	$V_{RWM}=3V, T=25^{\circ}C$		0.1	0.5	$\mu A$
Peak Pulse Current	$I_{PP}$	$t_p=8/20\mu s$			20	A
Clamping Voltage	$V_C$	$I_{PP}=20A, t_p=8/20\mu s$			16	V
Junction Capacitance	$C_j$	$V_R=0V, f=1MHz$ (pin1 \cdot pin 2to pin3)		200		pF

**Electrical Parameters**( $T_A=25^{\circ}C$  unless otherwise noted)

Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage@ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current@ $V_{RWM}$
$V_{BR}$	Breakdown Voltage@ $I_T$
$I_T$	Test Current

 Note: 8/20 $\mu s$  pulse waveform.


### Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

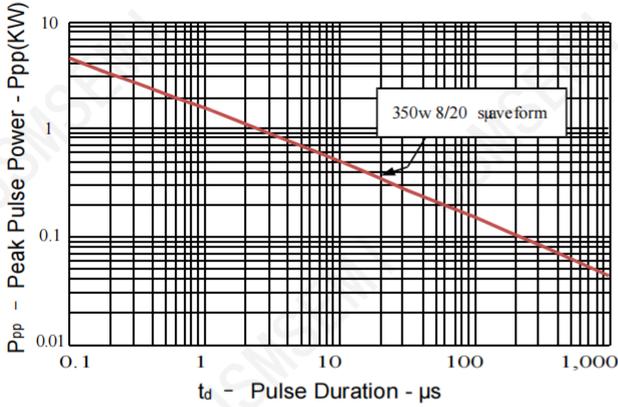


Figure 2: Power Derating Curve

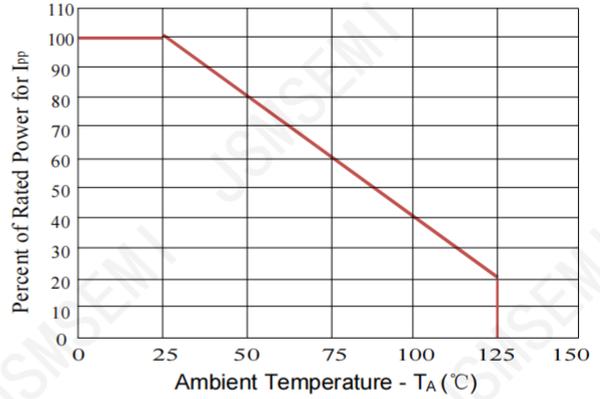


Figure3: Pulse Waveform

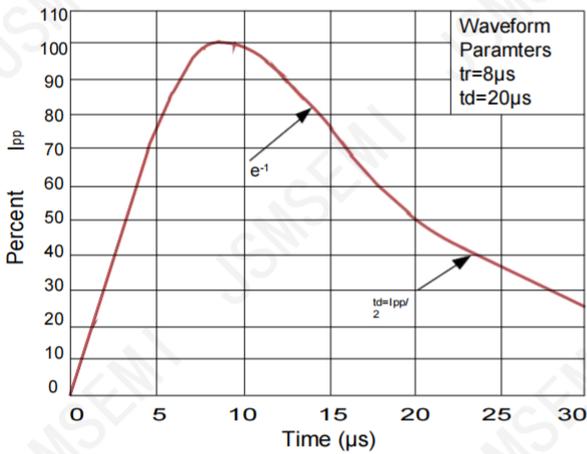
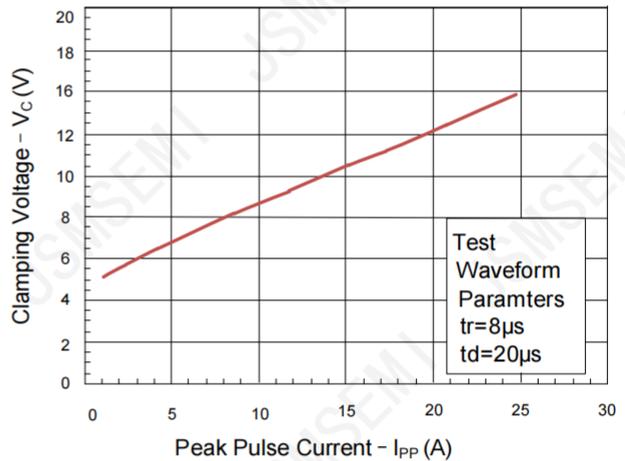
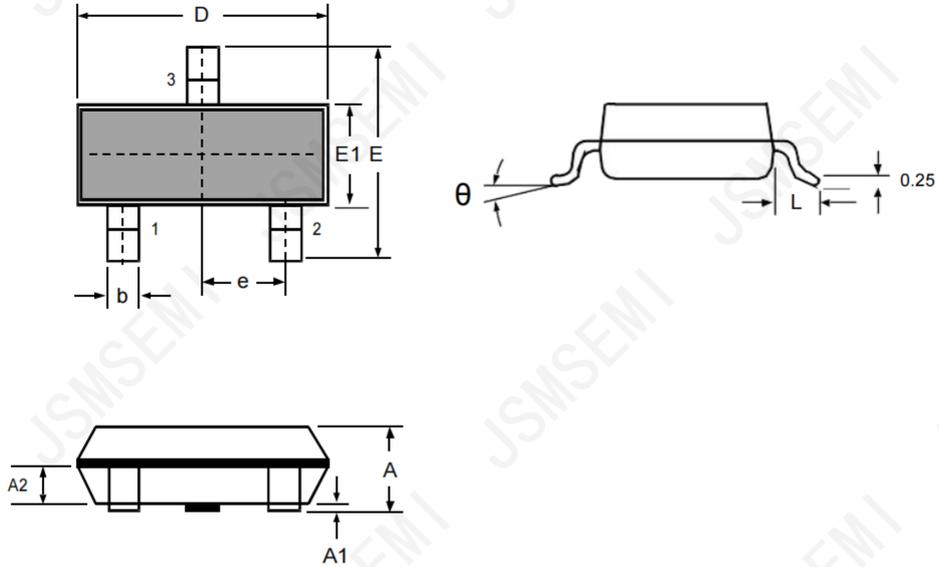


Figure 4: Clamping Voltage vs. Ipp



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	2/23/2024

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