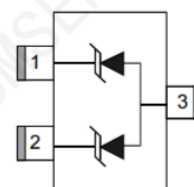
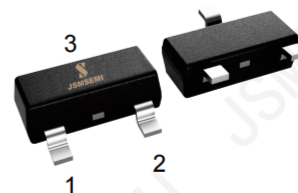


## Features

- 45 Watt speak pulse power( $t_p=8/20\mu s$ )
- Unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance( $C_j=0.7pF_{typ.}$ )
- Protection two data lines
- IEC 61000-4-2 $\pm 15V$  contact  $\pm 15kV_{air}$
- IEC 61000-4-4(EFT)40A(5/50ns)
- IEC 61000-4-5(Lightning)3.5A(8/20 $\mu s$ )



SOT-23

## Mechanical Data

- SOT-23 package
- Molding compound flammability rating:UL94V-0
- Packaging:Tape and Reel
- RoHS/WEEE Compliant

## Applications

- Dataline
- Automatic Teller Machins
- Net works
- Power line

## Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power( $t_p=8/20\mu s$ )	$P_{PP}$	45	Watts
Peak Pulse Current( $t_p=8/20\mu s$ )(note1)	$I_{pp}$	3.5	A
ESD per IEC61000-4-2(Air) ESD per IEC61000-4-2(Contact)	$V_{ESD}$	15 15	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	$^{\circ}C$

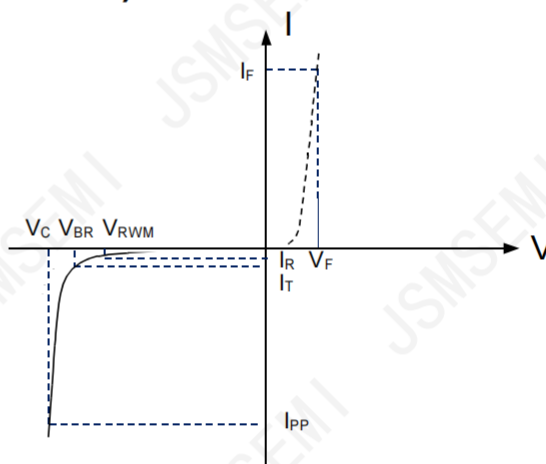
## Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6	7	8	V
Reverse Leakage Current	$I_R$	$V_{RWM}=5V, T=25^{\circ}C$		0.5	1	$\mu A$
Peak Pulse Current	$I_{PP}$	$t_p=8/20\mu s$			3.5	A
Clamping Voltage	$V_C$	$I_{PP}=3.5A, t_p=8/20\mu s$		12	15	V
Junction Capacitance	$C_j$	$V_R=0V, f=1MHz$		0.7	0.8	pF

## Electrical Parameters (TA = 25°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

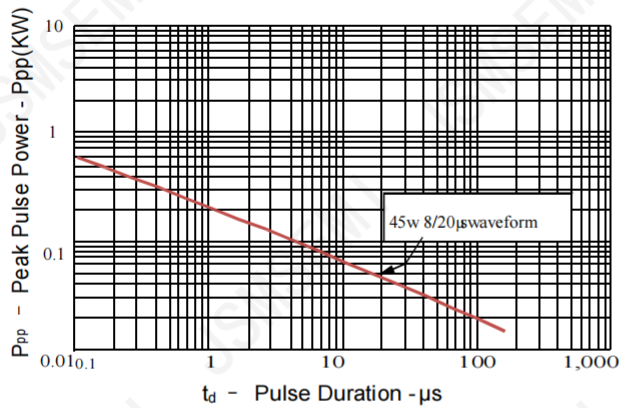


Figure 2: Power Derating Curve

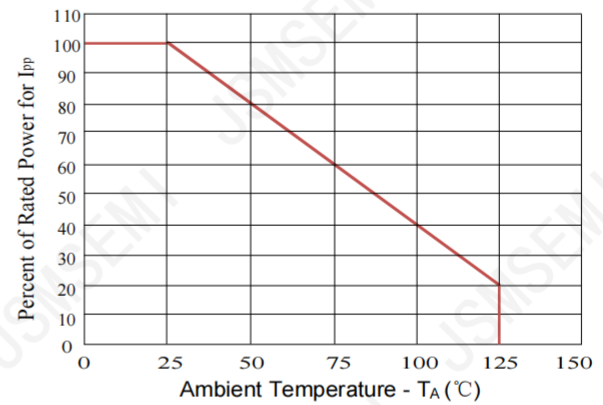


Figure3: Pulse Waveform

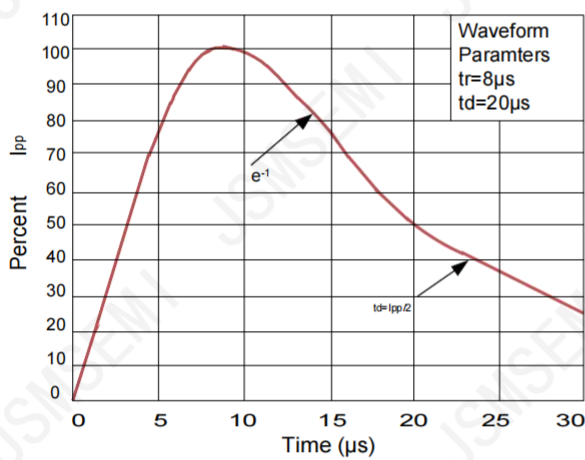
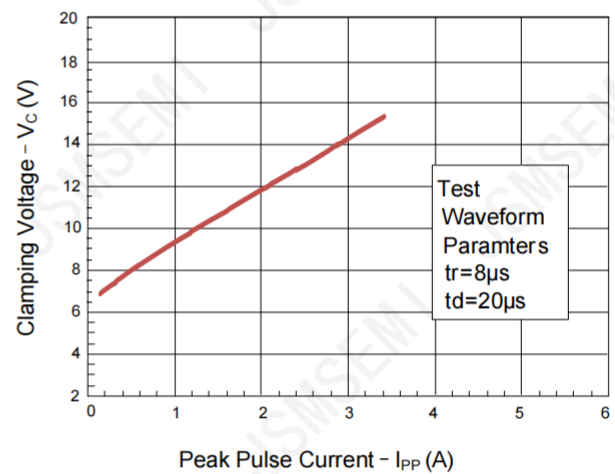
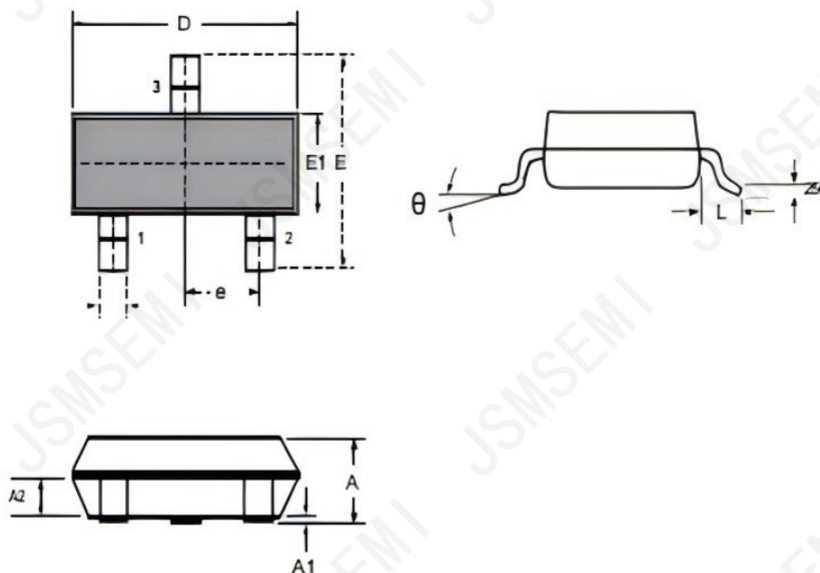


Figure 4: Clamping Voltage vs. Ipp



## 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	6/27/2021

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