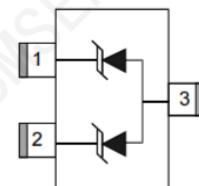


Features

- 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($C_j=0.7\text{pF}_{\text{typ.}}$)
- Protection two data lines
- IEC 61000-4-2±15V contact $\pm 15\text{kV}_{\text{air}}$
- IEC 61000-4-4(EFT)40A(5/50ns)
- IEC 61000-4-5(Lightning)3.5A(8/20 μs)



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)	°C
Junction Temperature	T_J	-55 to +125	°C
Storage Temperature	T_{stg}	-55 to +125	°C

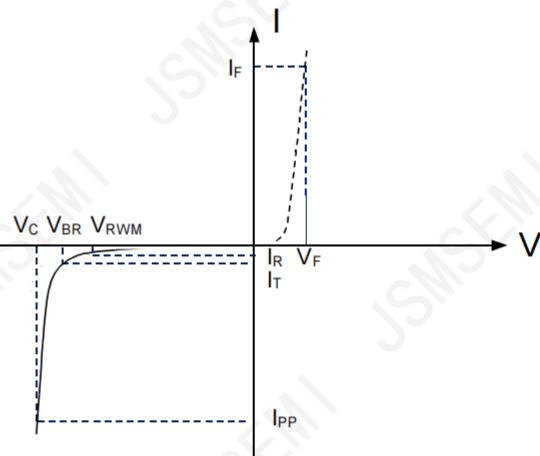
Electrical Characteristics

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



Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

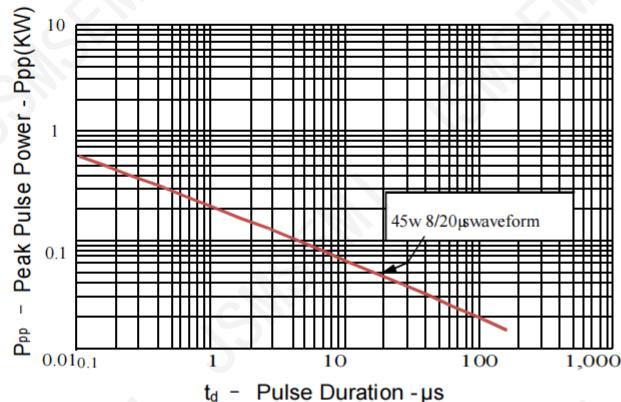


Figure 2: Power Derating Curve

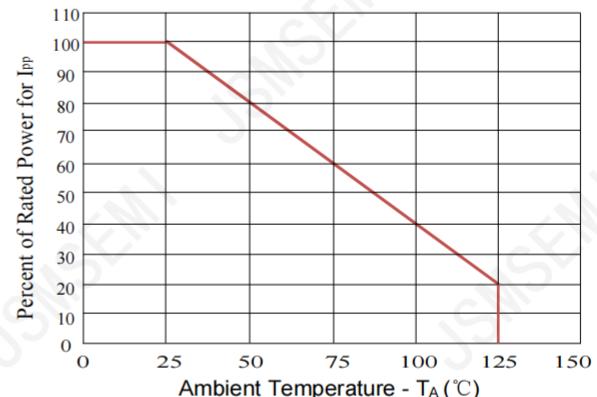


Figure 3: Pulse Waveform

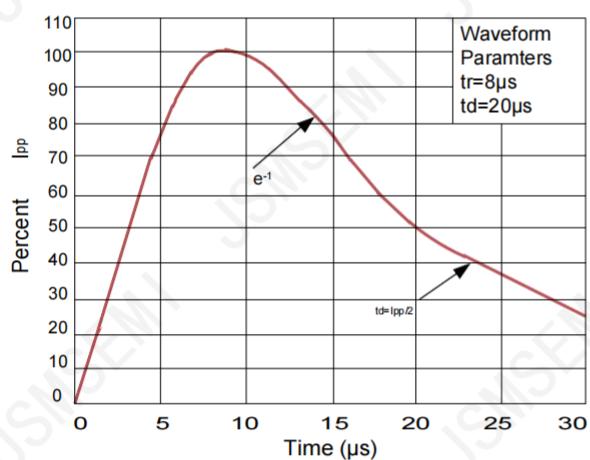
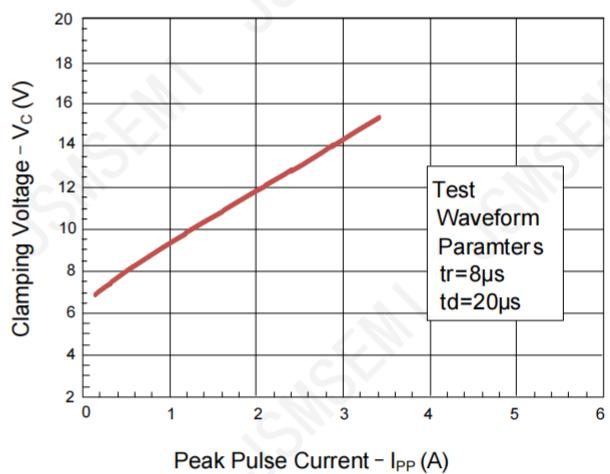
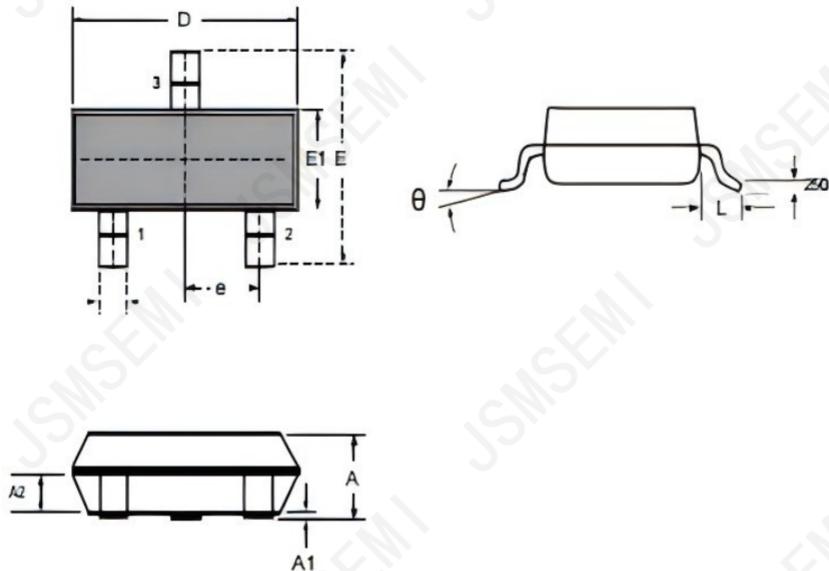


Figure 4: Clamping Voltage vs. Ipp



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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