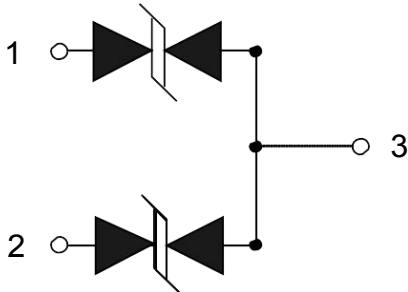


Features

- 400 Watts peak pulse power (tp = 8/20μs)
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 ±30kV contact ±30kV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)



SOT-23 (Top View)

Mechanical Data

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

Applications

- Dataline
- Automatic Teller Machines
- Networks
- Power line

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power (tp = 8/20μs)	P _{pp}	400	Watts
Peak Pulse Current (tp = 8/20μs) (note1)	I _{pp}	24	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	30 30	kV
Lead Soldering Temperature	T _L	260(10seconds)	℃
Junction Temperature	T _J	-55 to + 125	℃
Storage Temperature	T _{stg}	-55 to + 125	℃

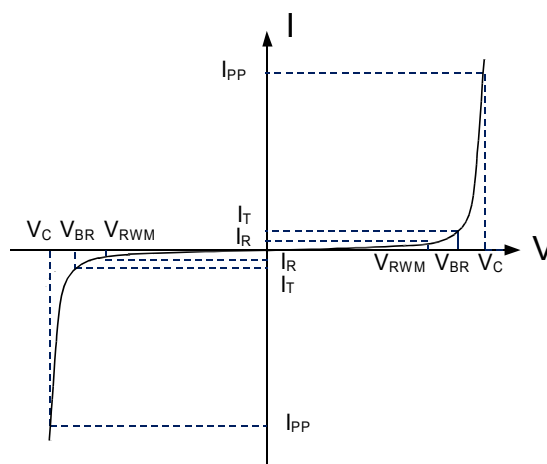
Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				3.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	4.0	6.5	8.0	V
Reverse Leakage Current	I_R	$V_{RWM}=3.0V, T=25^{\circ}C$		0.1	0.5	μA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$			24	A
Clamping Voltage	V_C	$I_{PP}=24A, t_p=8/20\mu s$			18.0	V
Junction Capacitance	C_j	$V_R=0V, f=1MHz$ (Pin1、Pin2 to Pin3)		100	110	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 μs pulse waveform.



Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

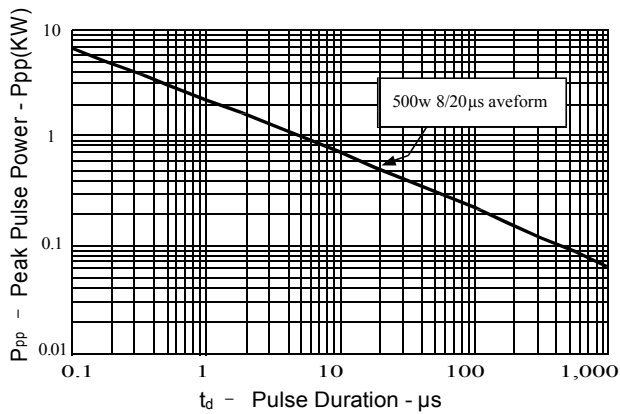


Figure 2: Power Derating Curve

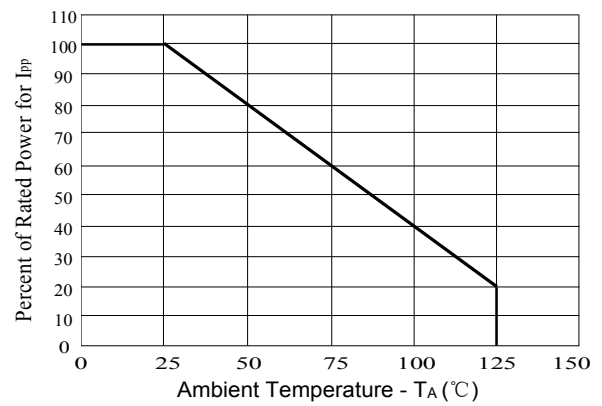


Figure3: Pulse Waveform

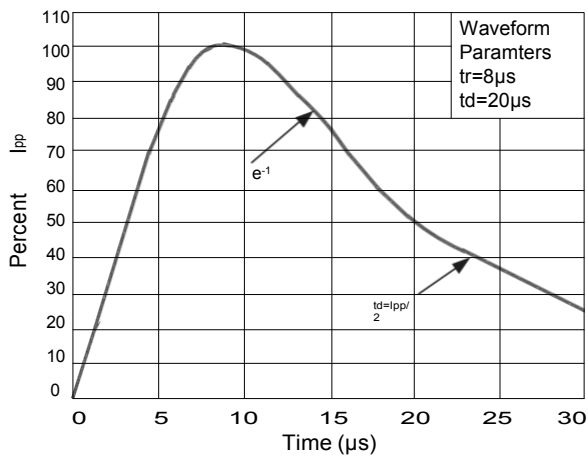
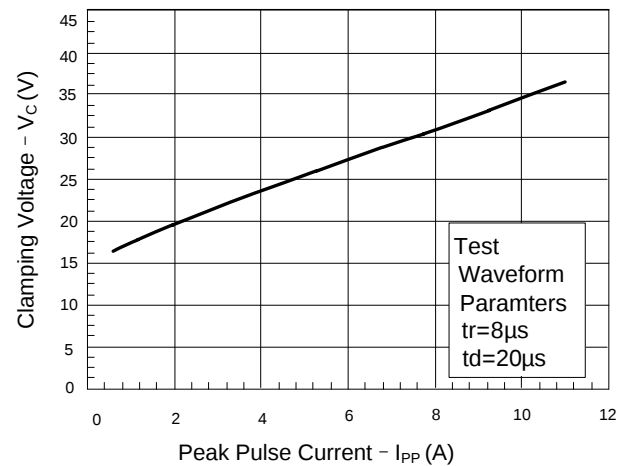
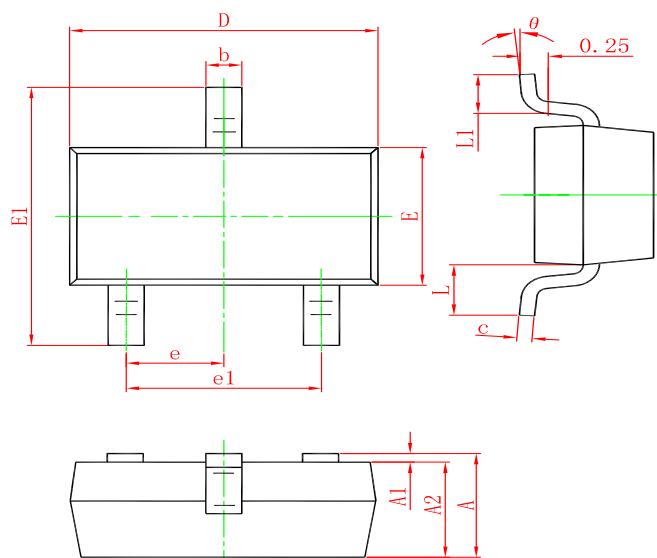


Figure 4: Clamping Voltage vs. Ipp

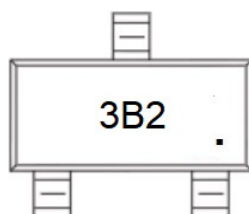


SOT-23 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In 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
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Marking



Ordering information

Order code	Package	Baseqty	Deliverymode
UMW BST23C032V	SOT-23	3000	Tape and reel