

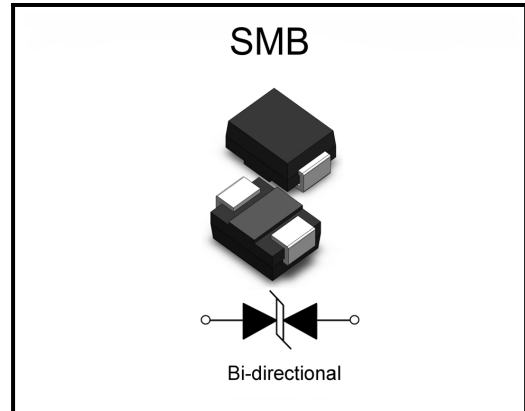
BSMBJ3.3CAH

TVS Protection Diode

Features

- 10kW Peak pulse power per line ($t_p = 8/20\mu s$)
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Protection one power line
- IEC 61000-4-2 $\pm 30kV$ contact $\pm 30kV$ air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 550A (8/20 μs)

Package



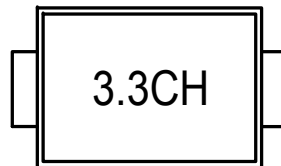
Mechanical Characteristics

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation

Applications

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

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
BSMBJ3.3CAH	SMB	3000	Tape and reel

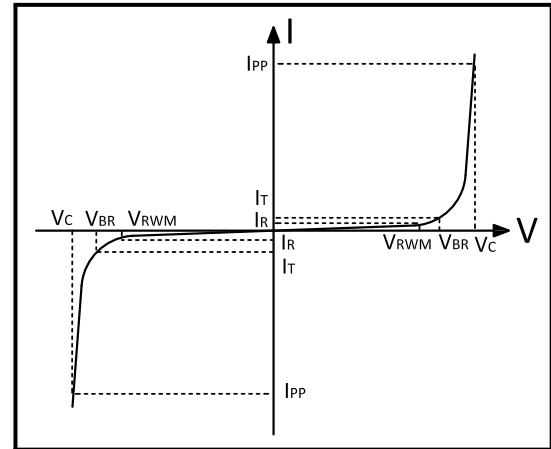


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Electrical Parameters (T_A = 25°C unless otherwise noted)

Symbol	Parameter
V _{RWM}	Peak Reverse Working Voltage
I _R	Reverse Leakage Current @ V _{RWM}
V _{BR}	Breakdown Voltage @ I _T
I _T	Test Current
I _{PP}	Maximum Reverse Peak Pulse Current
V _C	Clamping Voltage @ I _{PP}



Absolute Maximum Rating

Rating	Symler	Value	Units
Peak Pulse Power (tp =8/20μs)	P _{PP}	10000	Watts
Peak Pulse Current (tp =8/20μs)	I _{PP}	550	A
ESD per IEC 61000-4-2 (Air)	V _{ESD}	30	KV
ESD per IEC 61000-4-2 (Contact)		30	
Lead Soldering Temperature	T _L	260(10seconds)	°C
Junction Temperature	T _J	-55 to + 150	°C
Storage Temperature	T _{stg}	-55 to + 150	°C

Electrical Characteristics

Parameter	Symler	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V _{RWM}	-	-	-	3.3	V
Reverse Breakdown Voltage	V _{BR}	I _T =1mA	4.0	-	7.0	V
Reverse Leakage Current	I _R	V _{RWM} =3.3V, T=25°C	-	-	1	uA
Peak Pulse Current	I _{PP}	tp =8/20μs	-	-	550	A
Clamping Voltage	V _C	I _{PP} =550A, tp =8/20us	-	14	18	V
Junction Capacitance	C _j	V _R =0V, T=25°C, f=1MHZ	-	1500	-	pF





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Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

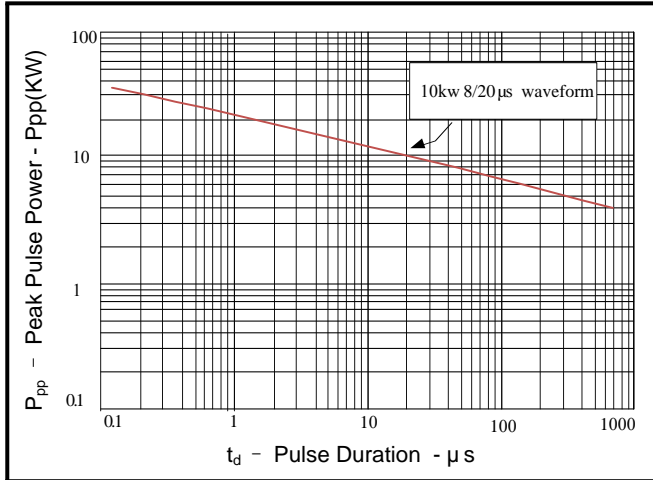


Figure 2: Power Derating Curve

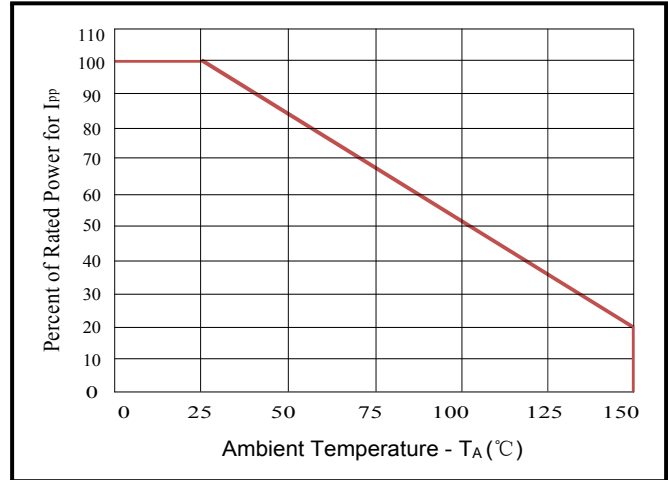


Figure 3: Pulse Waveform

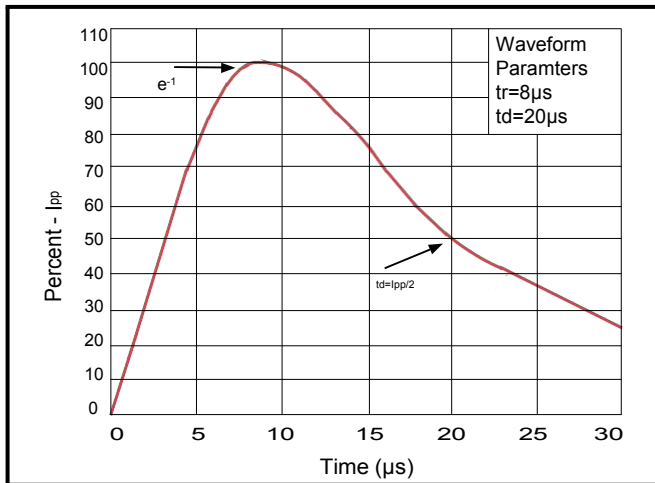


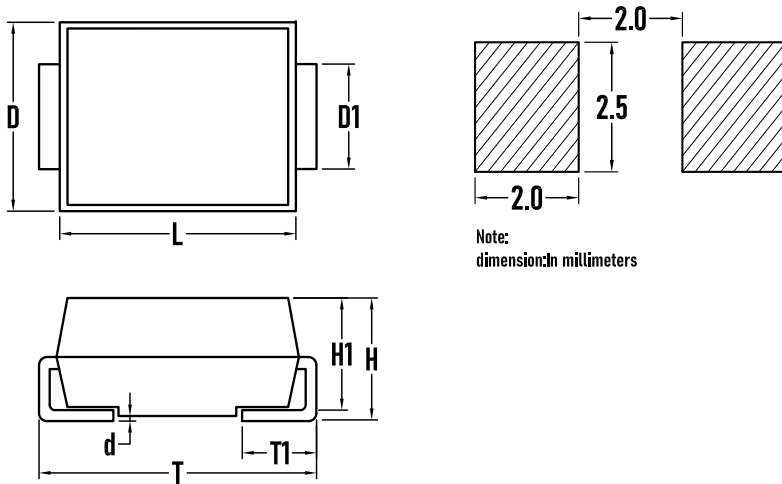
Figure 4: Clamping Voltage vs. Ipp



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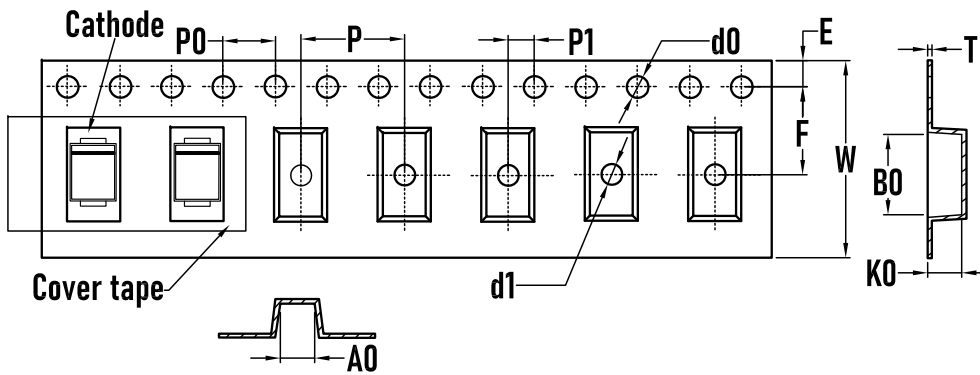
TVS Protection Diode

Outline Drawing - SMB



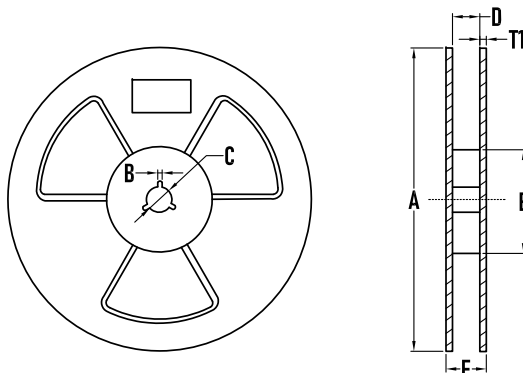
SYMBOL	MILLIMETER		Inches	
	MIN	MAX	MIN	MAX
D	3.3	3.9	0.130	0.154
D1	1.7	2.3	0.067	0.091
T	5.1	5.7	0.201	0.224
T1	0.8	1.6	0.031	0.063
d	-	0.3	-	0.012
H1	2.0	2.4	0.079	0.094
H	2.1	2.5	0.083	0.098
L	4.0	4.7	0.157	0.185

Packaging Tape - SMB



SYMBOL	MILLIMETER
A0	3.60±0.1
B0	5.45±0.1
d0	1.50±0.1
d1	1.50±0.1
E	1.75±0.1
F	5.50±0.1
K0	2.30±0.1
P	8.00±0.1
P0	4.00±0.1
P1	2.00±0.1
W	12.00±0.1
T	0.22±0.02

Packaging Reel



SYMBOL	MILLIMETER
A	323±2
B	3.0±0.2
C	15.0±0.5
D	13±2
E	73±2
T1	2.2±0.2
Quantity	3000PCS

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Specifications are subject to change without notice.

Please refer to <http://www.born-tw.com> for current information.

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