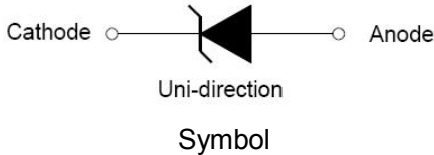


SMB

Features

- Peak power dissipation 3000W@10 x 1000 us Pulse
- Low incremental surge resistance
- Excellent clamping capability
- Glass passivated junction
- Fast response time
- Typical IR less than 1uA
- Halogen free and RoHS compliant

Mechanical Data

- CASE: SMBJ(DO-214AA) Molded Plastic
- Polarity: By cathode band denotes uni-directional device, none cathode band denotes bi-directional device
- Mounting Position: Any

Making Code & information

3.0SMBJ
58CAS

Marking Code

Package	Packing Description	Packing Quantity
SMB	Tape/Reel, 13" reel	3000

3.0SMDJ 58 C A S

- └── CSR Tech
- └── 5% V_{BR} Voltage Tolerance
- └── Bidirectional
- └── V_{RWM} Voltage
- └── Series Code

Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Units
Peak Pulse Power Dissipation on 10/1000 us Waveform (Note 1, 2, FIG.1)	P _{PPM}	Min 3000	W
Power Dissipation on Infinite Heat Sink at T _L =50°C	P _D	6.5	W
Peak Pulse Voltage on 10/700 us Waveform (Note 1, FIG.3)	V _{PPM}	4000	V
Peak Pulse Current of on 10/1000us Waveform (Note 1, FIG.3)	I _{PPM}	32.1	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave (Note 2. 3)	I _{FSM}	300	A
Operating Junction Temperature Range	T _J	-55 to 150	°C
Storage Temperature Range	T _{STG}	-55 to 150	°C

Notes:

1. Non-repetitive current pulse, per Fig.3 and derated above T_A=25°C per Fig.2.
2. Mounted on 5.0x5.0mm² (0.03mm thick) Copper Pads to each terminal.
3. Measured on 8.3ms single half sine-wave, or equivalent square wave, for Unidirectional device only.

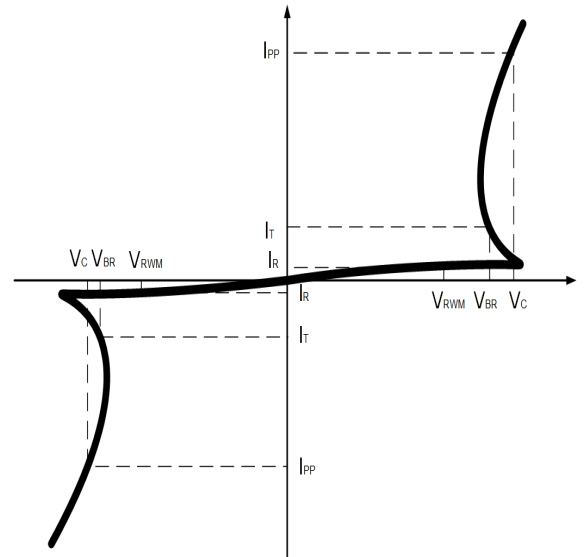
Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified).

Type Number	Marking	Reverse Stand-Off Voltage	Breakdown Voltage Min. @I _T	Breakdown Voltage Max. @ I _T	Test Current	Maximum Clamping Voltage@I _{PP}			Peak Pulse Current	Reverse Leakage @V _{RMW}
3.0SMBJ58CAS	3.0SMBJ58CAS	V _{RMW} (V)	V _{BR MIN} (V)	V _{BR MAX} (V)	I _T (mA)	V _C (V)			I _{PP} (A)	I _R (uA)
		58	64.4	71.2	1.0	48(min)	60(typ)	93(max)	32.1	2

I - V Curve Characteristics

Parameter	Definition
C _J	Junction Capacitance - typical capacitance measured with 0V or V _R bias
I _{PP}	Peak Pulse Current - maximum rated peak impulse current
V _C	Clamping Voltage - Peak voltage measured across the suppressor at a specified I _{ppm} (peak impulse current)
V _{BR}	Breakdown Voltage - Maximum voltage that flows through the TVS at a specified test current (I _T)
I _R	Leakage Current - maximum peak off-state current measured at V _R
V _R	Peak Off-state Voltage - maximum voltage that can be applied while maintaining off state



Ratings and Characteristic Curves

(Ratings at 25°C ambient temperature unless otherwise specified).

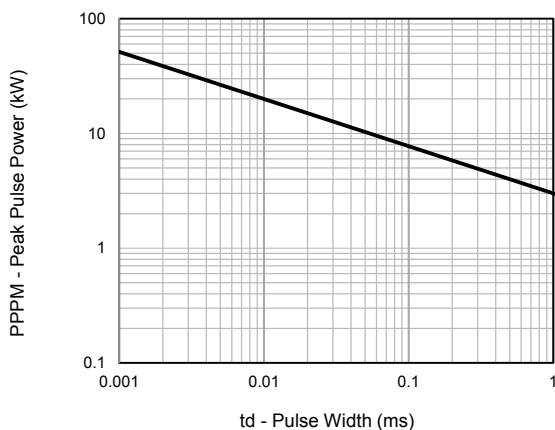


Fig.1 - Peak Pulse Power Rating

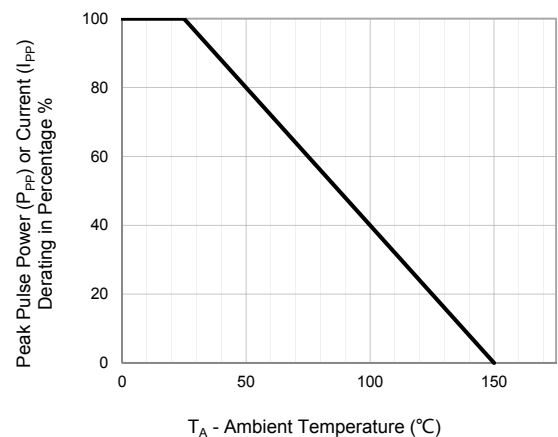


Fig.2 - Pulse Derating Curve

Ratings and Characteristic Curves

(Ratings at 25°C ambient temperature unless otherwise specified).

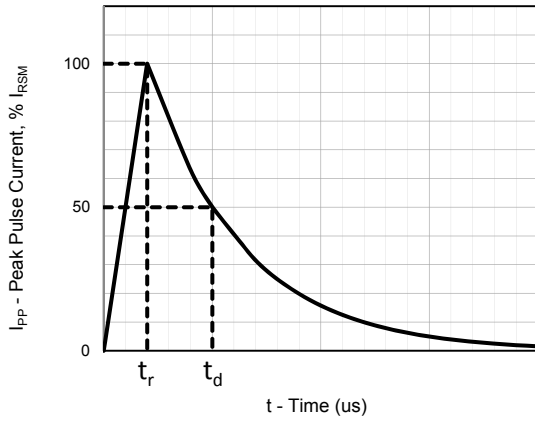


Fig.3 - Pulse Waveform

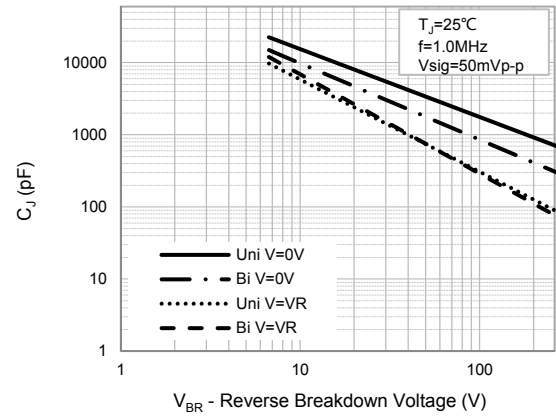


Fig.4 - Typical Junction Capacitance

Package Outline Dimensions: SMB(DO-214AA)

Dim	Millimeters		Inches	
	Min	Max	Min	Max
L	4.4	4.6	0.173	0.181
D	3.5	3.7	0.138	0.146
D1	1.9	2.1	0.075	0.083
T	5.1	5.48	0.201	0.216
T1	1.0	1.6	0.039	0.063
d	-	0.2	-	0.008
H	2.2	2.45	0.087	0.096
H1	2.15	2.35	0.085	0.093

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