



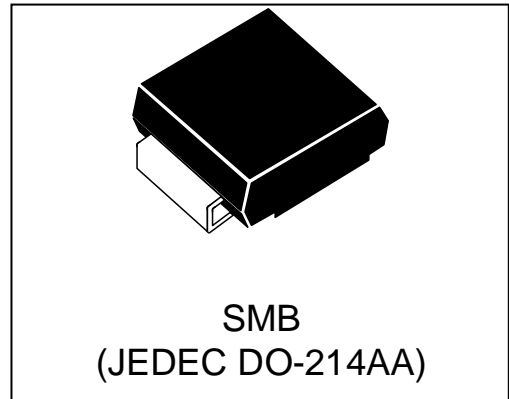
WS58P20SMB-BH

Order Code: WS58P20SMB-BH

Power Transient Voltage Suppressor

Features

- 2000 watts Peak Pulse Power (10/1000µs)
- Bidirectional Protection
- Fast Response Time : Typically < 1ns
- Excellent Clamping Capability
- Glass Passivated Junction
- Built-in Strain relief
- Low inductance
- Low profile package
- High temperature solder:260°C/10 seconds at terminal



Mechanical Characteristics

- JEDEC DO-214AA package
- Molding compound flammability rating: UL 94V-0
- Marking : **2SMBJ58CAH**
- Packaging : Tape and Reel per EIA 481
- RoHS Compliant

Applications

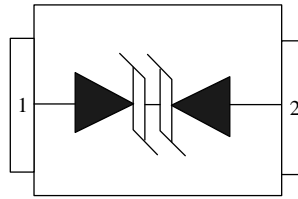
- I/O Interfaces
- Power lines
- Automotive and Telecommunication
- Computers & Consumer Electronics
- Industrial Electronics

Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power (tp =10/1000µs) (see Note1,2)	P _{PPM}	2000	Watts
Peak pulse current (10/1000µs) (see Note2)	I _{PP}	22.0	A
Power Dissipation on infinite heat sink T _A = 50 °C (Fig4)	P _D	6.5	W
Operating Junction Temperature range	T _J	-65 to + 150	°C
Storage Temperature range	T _{STG}	-65 to + 150	°C

Note1: Peak Pulse Power Rating as Pulse Width ,per Fig1.

Note2: Peak Pulse Power or Current Derated above T_A=25°C Per Fig. 2 and Non-Repetitive Current Pulse,Per Fig.3.

Pin Configuration



WS58P20SMB-BH						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				58	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	64.4		71.2	V
Reverse Leakage Current	I_R	$V_{RWM}=58V, T=25^{\circ}C$			1	μA
Clamping Voltage	V_C	$I_{PP}=22.0A, t_p=10/1000\mu s$			93.6	V

Typical Characteristics

Figure 1: Peak Pulse Power Rating Curve

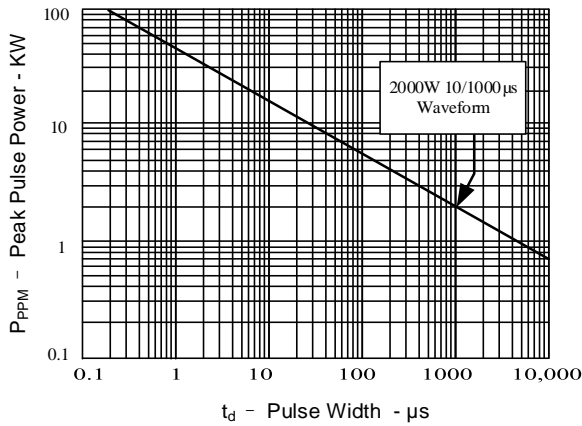


Figure 2: Pulse Derating Curve

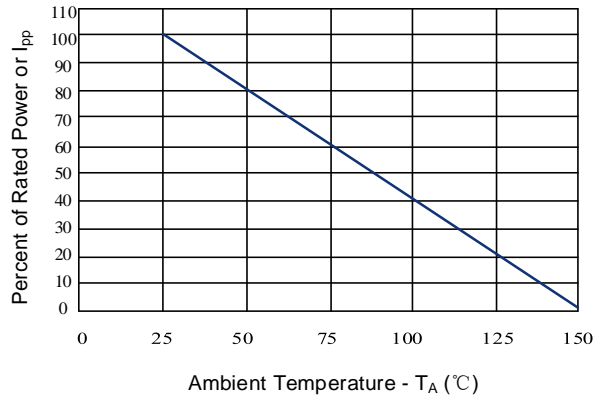


Figure 3: Pulse Waveform

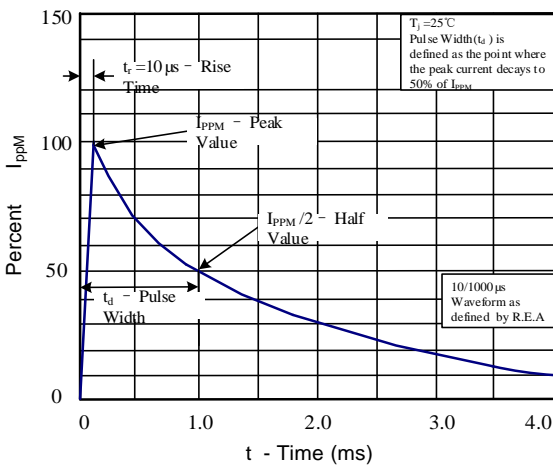
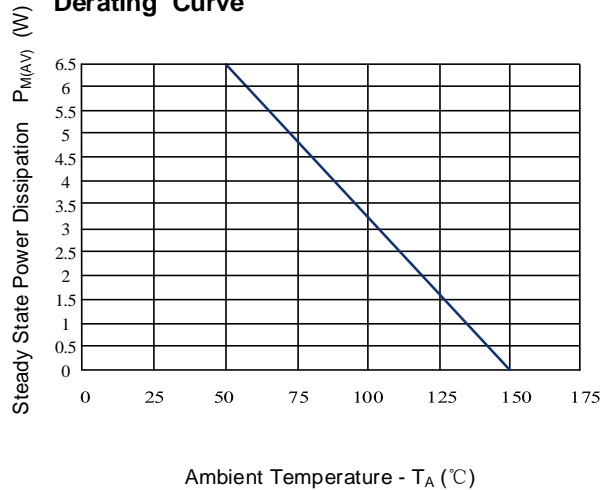
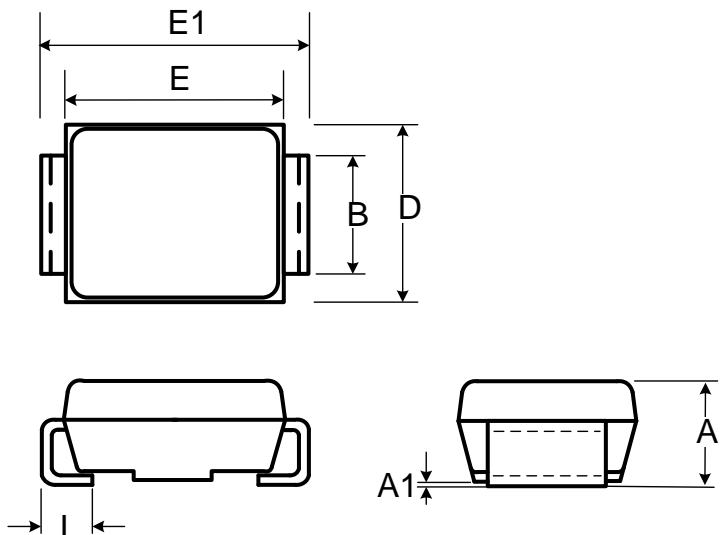


Figure 4: Steady State Power Dissipation Derating Curve

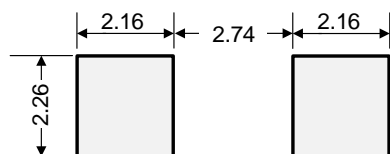


Outline Drawing – SMB(DO-214AA)

Ref. (mm)	Millimeters	
	Min.	Max.
A	2.130	2.440
A1	-	0.203
B	1.900	2.200
E	4.100	4.750
E1	5.210	5.590
D	3.300	3.940
L	0.760	1.520



Recommended Solder Pad Layout



Dimensions in mm

Package Information

Package Type	Description	Quantity (pcs)	Standard
DO-214AA	Tape & Reel -12mm/13" tape	3000	EIA-481-D

Contact Information

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