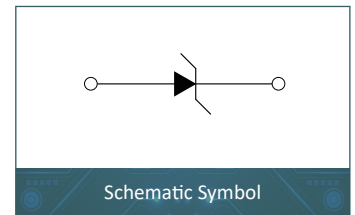
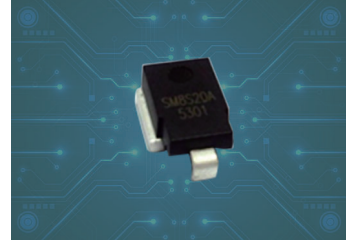


1. FEATURES

- Junction passivation optimized design passivated anisotropic rectifier technology
- $T_J = 175^\circ\text{C}$ capability suitable for high reliability and automotive requirement
- Available in Bidirectional
- Low leakage current
- Low inductance
- Low forward voltage drop
- High surge capability
- AEC-Q101 qualified



2. APPLICATIONS

- Use in sensitive electronics protection against voltage transients induced by inductive load switching and lightning, especially for automotive load dump protection application.

3. MECHANICAL DATA

- Case: DO-218AB
- Terminal: Matte tin plated leads, solderable per J-STD-002 and JESD 22-B102

4. MAXIMUM RATINGS AND CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

Symbol	Rating	Value	Units
P_{PPM}	Peak Pulse Power Dissipation on 10/1000us waveform	6600	Watts
$P_{M(AV)}$	Power Dissipation On Infinite Heat Sink at $T_L = 75^\circ\text{C}$	8.0	Watts
I_{PPM}	Peak Pulse Current of on 10/1000us waveform (Note1)	38.9	Amps

Notes : 1. Non-repetitive current pulse, $T_A = 25^\circ\text{C}$.

2. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle = 4 pulses per minutes maximum



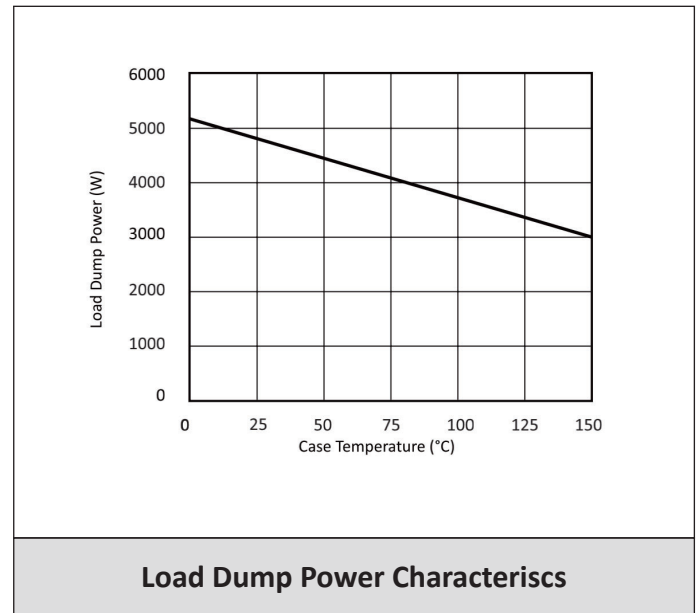
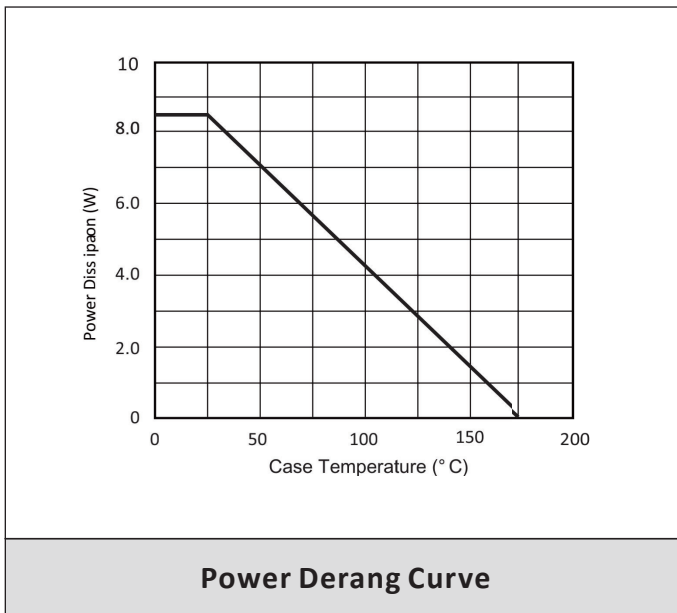
5. THERMAL CONSIDERATIONS

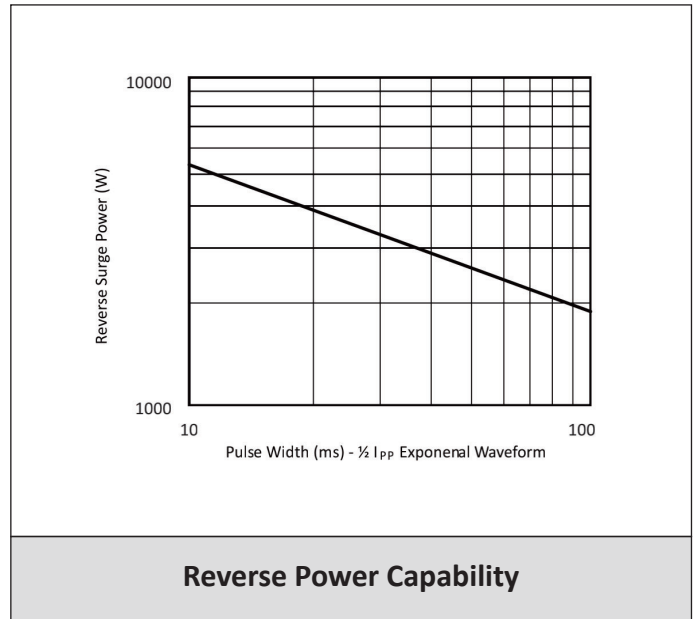
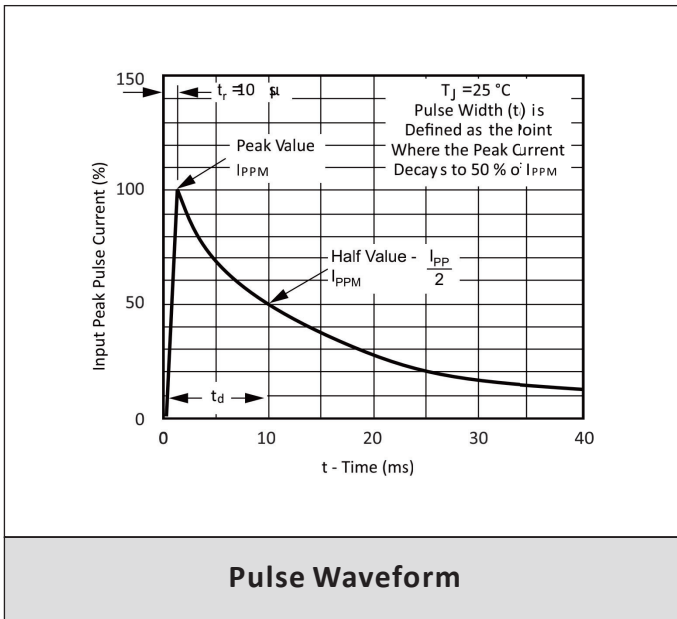
Symbol	Parameter	Value	Unit
T_j	Operating Junction Temperature	-55 to +175	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C
$R_{\theta jc}$	Typical thermal resistance, juncon to case	0.90	°C/W

6. ELECTRICAL CHARACTERISTICS

Part Number	Reverse Stand-off Voltage	Breakdown Voltage Min.@ T_T	Breakdown Voltage Max.@ T_T	Test Current	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Leakage @ V_{RWM} $T_J=175^\circ\text{C}$
	V_{RWM} (V)	V_{BR} (V)	V_{BR} (V)	I_T (mA)	V_C (V)	I_{PP} (A)	I_R (μA)	I_R (μA)
SM8S24A	24.0	26.7	29.5	5.0	38.9	170.0	10.0	150.0

7. RATINGS AND CHARACTERISTIC CURVES ($T_A=25^\circ\text{C}$)





8. DO-218AB PACKAGE DIMENSIONS

Item	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	0.374	0.413	9.5	10.5
B	0.327	0.342	8.3	8.7
C	0.524	0.539	13.3	13.7
D	0.592	0.628	15.0	16.0
E	0.335	0.358	8.5	9.1
F	0.374	0.398	9.5	10.1
G	0.094	0.118	2.4	3.0
H	0.020	0.028	0.5	0.7
J	0.106	0.146	2.7	3.7
K	0.075	0.083	1.9	2.1
L	0.185	0.201	4.7	5.1

9. ORDERING INFORMATION

Part Number	Marking Code	Component Package	Base Quantity	Reel Size
SM8S24A	-	DO-218AB	750	13"



CONTACT US

Headquarters

No.3387 Shendu Road Pujiang I&E Park Minhang Shanghai China

Hotline

400-021-5756

Web

[Http://www.semiware.com](http://www.semiware.com)

By Telephone

General:86-21-3463-7172

Sales:86-21-3463-7345

Technical Support:86-21-3463-7654

By Fax

General:86-21-3965-0654

Sales:86-21-3463-7458

By Email

General:china@semiware.com

Sales:sales@semiware.com

Technical Support:fae@semiware.com

By QR Code



Website



Wechat

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