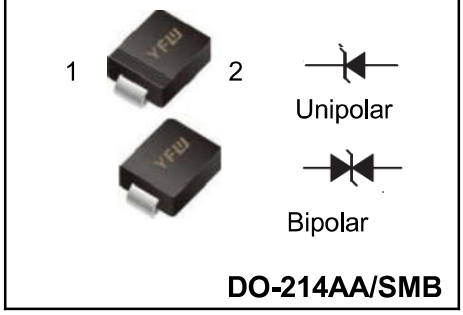
Transient Voltage Suppressor

Pinning

1.Cathode	2.Anode



DO-214AA/SMB

FEATURES

- Excellent clamping capability
- Low leakage current
- Low capacitance
- High surge capability
- Glass passivated chip
- Epoxy resin package
- Built-in strain relief
- Will not fatigue
- RoHS Compliant
- Fast response time:
  typically less than 1.0ps from 0 Volts to VBR min

APPlications

- Telecom
- Computer
- Industrial electronic
- Consumer electronic

Maximum Ratings and Electrical characteristics

Ratings at 25 ambient temperature unless o °C therwise specified.

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation	P_{PPM}	600	W
Steady State Power Dissipation	P_D	5	W
Peak Forward Surge Current	I_{FSM}	100	A
Maximum Instantaneous Forward Voltage at 50A	V_{FM}	3.5/5	V
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	20	℃/W
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	100	°C/W
Operating Junction Temperature and Storage Temperature Range	T^J, T_{STG}	-50 to +150	°C

NOTES:

Notes1: Non-repetitive current pulse , 10/1000us Waveform.
Notes2: Mounted on copper pad area of 5×5mm to each terminal.
Notes3: Infinite HeatS ink atTA=50°C
Notes4: Measured on 8.3ms single half sine wave or equivalent square wave, duty cycle=4 perm inute maximum.
Notes5: For UnidirectionalOnly, VFM<3.5V for VBR≤200V and VFM<5.0V for VBR≥201V.

Electrical Characteristics

Part Number	Device Marking Code	Reverse Stand-off Voltage	Breakdown Voltage V_{BR} @ I_T		Test Current	Max. Clamping Voltage @ I_{PP}	Max. Peak Pulse Current	Max. Reverse Leakage @ V_{RWM}
		V_{RWM}(V)	Min.(V)	Max.(V)	I_T(mA)	$V_{C\ MAX.}$(V)	I_{PP}(A)	I_R(uA)
SMBJ3.3A	3.3A	3.3	5.2	6.0	10	7.3	82.2	200
SMBJ3.3CA	3.3CA	3.3	5.2	6.5	10	8.0	82.2	200

Ratings and Characteristic Curves

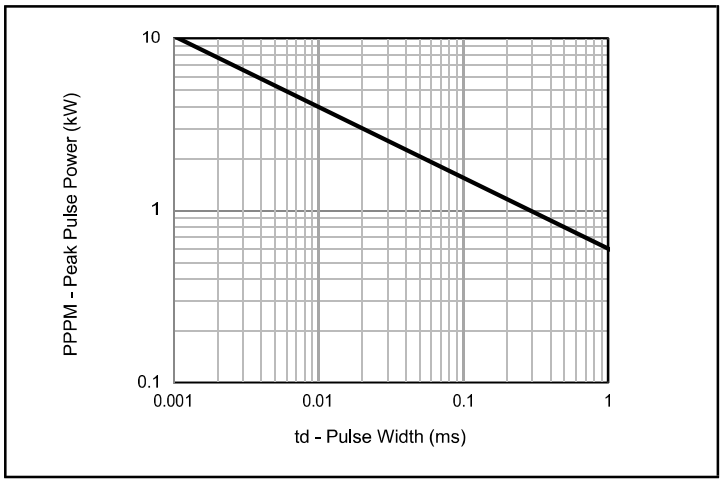


Fig.1 - Peak Pulse Power Rating

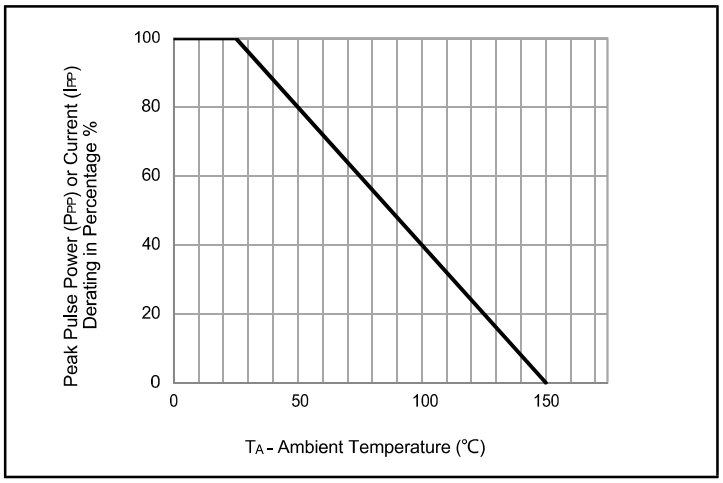


Fig.2 - Pulse Derating Curve

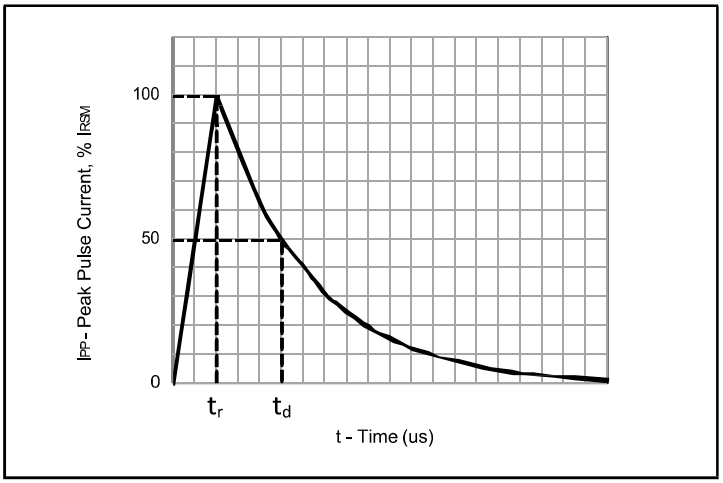


Fig.3 - Pulse Waveform

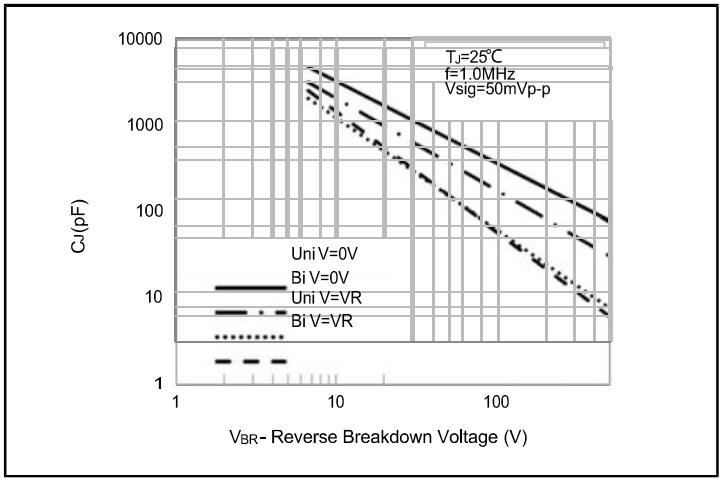


Fig.4 - Typical Junction Capacitance

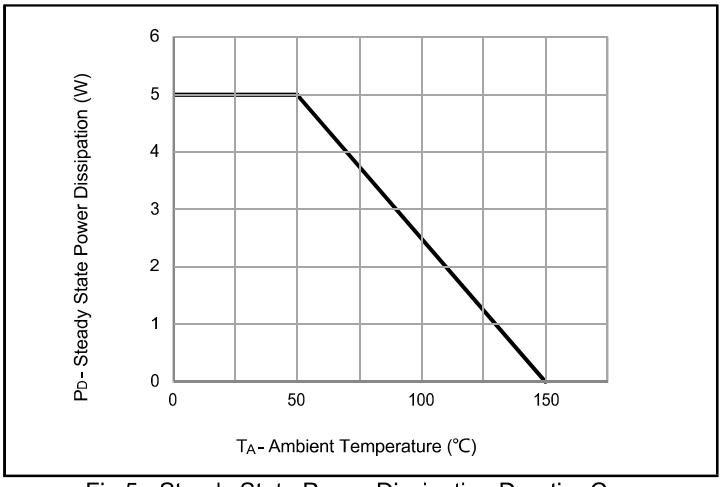


Fig.5 - Steady State Power Dissipation Derating Curve

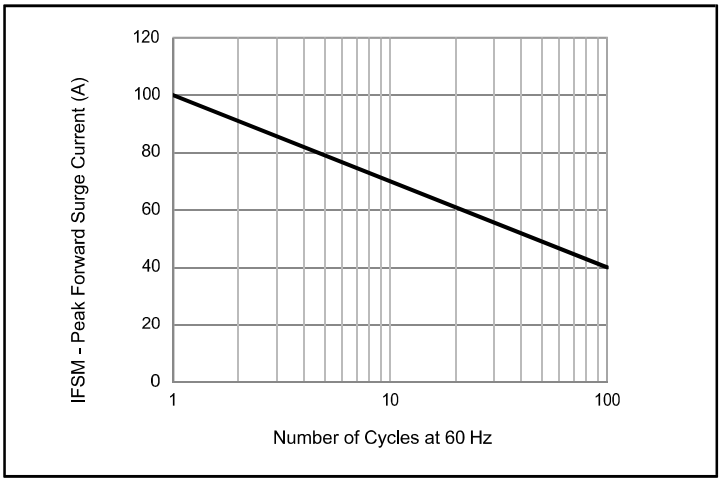


Fig.6 - Maximum Non-Repetitive Peak Forward Surge Current Uni-Directional Only

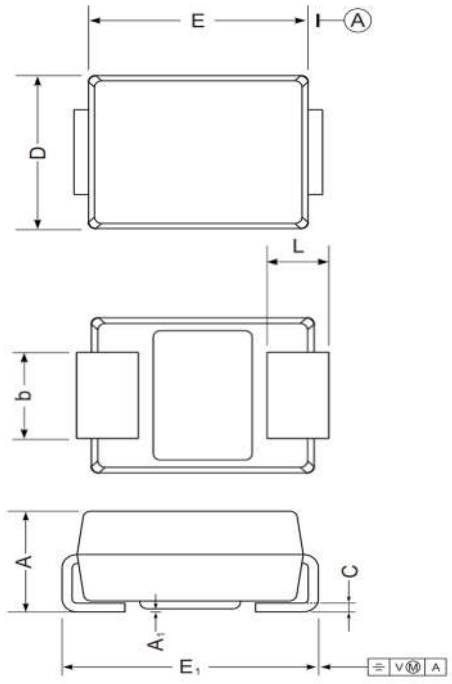
Marking Diagram

Ordering information

Package	Packing Description	Packing Quantity
DO-214AA SMB	Tape/Reel,13"reel	3000PCS/Reel 30000PCS/Carton

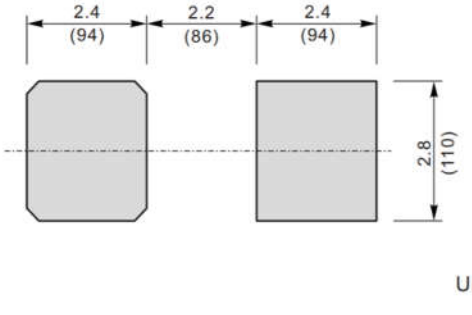
Package Dimensions

DO-214AA SMB



Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	2.13	2.44	84	96
E	4.06	4.70	160	185
D	3.3	3.94	130	155
E_1	5.08	5.59	200	220
A1	0.05	0.20	2.0	7.9
L	0.8	1.5	32	59
C	0.152	0.305	6	12
b	1.9	2.2	75	87

The recommended mounting pad size



Unit : mm (mil)

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