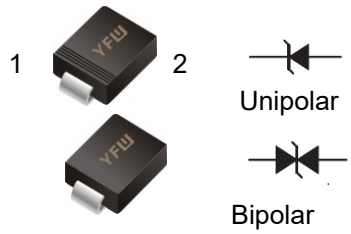
Surface Mount Transient Voltage Suppressor Rectifiers

Reverse Voltage:300V~553V

600 Watt Peak Pulse Power

Pinning

1.Cathode	2.Anode



DO-214AA/SMB

FEATURES

- Glass passivated chip
- 600W peak pulse power capability with a 10/1000 us waveform, repetitive rate (duty cycle):0.01 %
- Excellent clamping capability
- Low reverse leakage
- Very fast response time
- Lead and body according with RoHS standard

MECHANICAL DATA

- Case: DO-214AA/SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Epoxy: UL 94V-0 rate flame retardant
- Mounting position: Any

Maximum Ratings & Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Peak power dissipation with a 10/1000 us waveform(1)	P_{PP}	600	W
Peak pulse current wih a 10/1000 us waveform(1)	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at T_L = 75°C	P_D	5.0	W
Peak forward surge current, 8.3 ms single half sinewave unidirectional only(2)	I_{FSM}	100	A
Maximum instantaneous forward voltage at 50 A for unidirectional only(3)	V_F	3.5/6.5	V
Operating Junction Temperature and Storage Temperature Range	T_J,T_{STG}	-55 to +150	°C

Note:

1)Non-repetitive current pulse per Fig.5 and derated above T_A= 25 °C per Fig.1;

2)Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum;

3)VF<3.5V for devices of V_{BR}<200V and V_F<6.5V for devices of VBR>201V。

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}
UNI-POLAR	BI-POLAR	UNI	BI	V_{RWM}(V)	Min.(V)	Max.(V)	I_T(mA)	$V_{C\ MAX.}$(V)	I_{PP}(A)	I_R(uA)
P6SMB350A*	P6SMB350CA*	350A	350C	300.0	332.0	368.0	1	482.0	1.70	1
P6SMB400A*	P6SMB400CA*	400A	400C	342.0	380.0	420.0	1	548.0	1.50	1
P6SMB440A*	P6SMB440CA*	440A	440C	376.0	418.0	462.0	1	602.0	1.40	1
P6SMB480A*	P6SMB480CA*	480A	480C	408.0	456.0	504.0	1	658.0	1.30	1
P6SMB510A*	P6SMB510CA*	510A	510C	434.0	485.0	535.0	1	698.0	1.20	1
P6SMB530A*	P6SMB530CA*	530A	530C	450.0	503.0	556.0	1	725.0	1.20	1
P6SMB540A*	P6SMB540CA*	540A	540C	459.0	513.0	567.0	1	740.0	1.10	1
P6SMB550A*	P6SMB550CA*	550A	550C	467.0	522.5	577.5	1	760.0	1.10	1
P6SMB600A*	P6SMB600CA*	600A	600C	509.0	570.0	630.0	1	820.0	1.00	1
P6SMB650A*	P6SMB650CA*	650A	650C	553.0	618.0	682.0	1	897.0	1.00	1

Ratings and Characteristics Curves (T_A=25℃ unless otherwise noted)

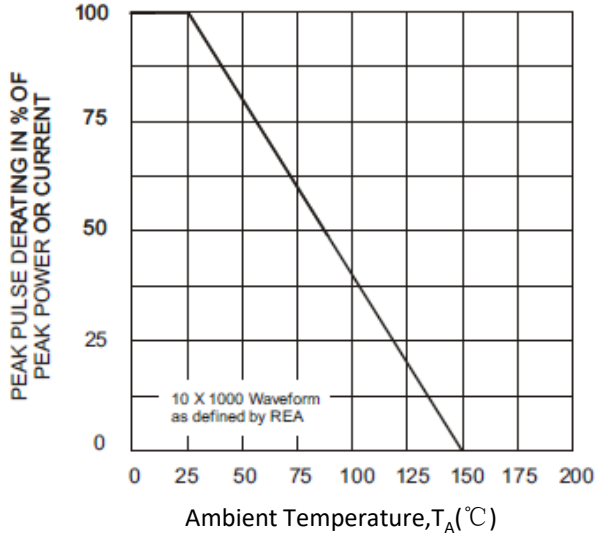


Fig. 1 - Pulse Derating Curve

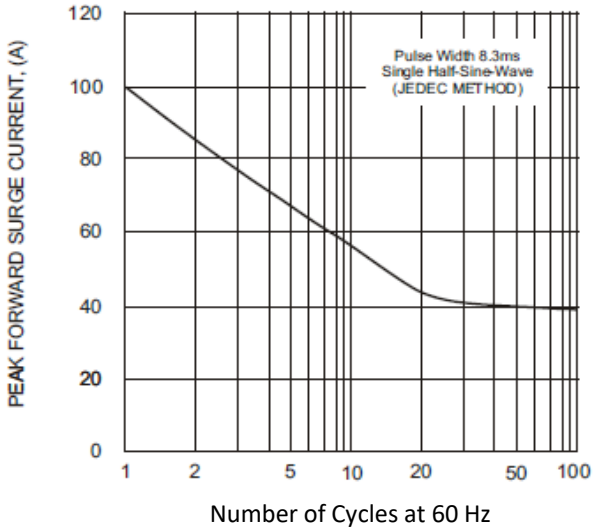


Fig. 2 - Maximum Non-Repetitive Surge Current

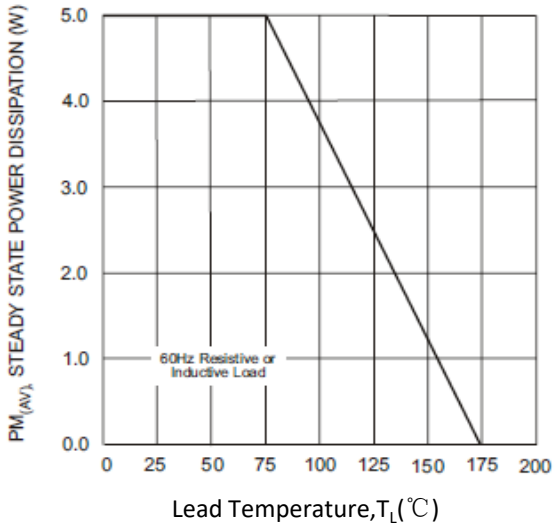


Fig. 3 - Steady State Power Derating Curve

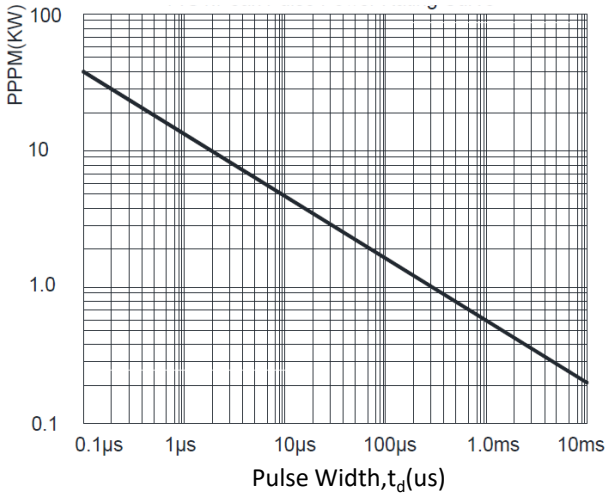


Fig. 4 - Peak Pulse Power Rating Curve

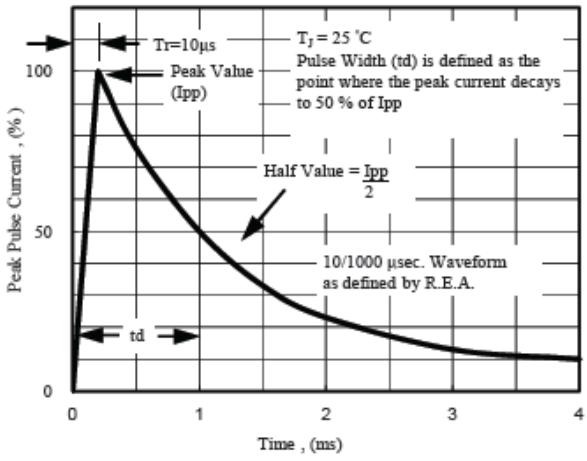


Fig. 5 - Pulse Waveform

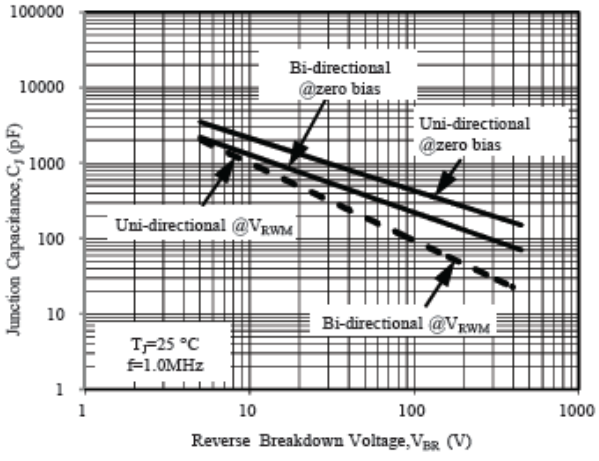


Fig. 6 - Typical Junction Capacitance

Marking Diagram

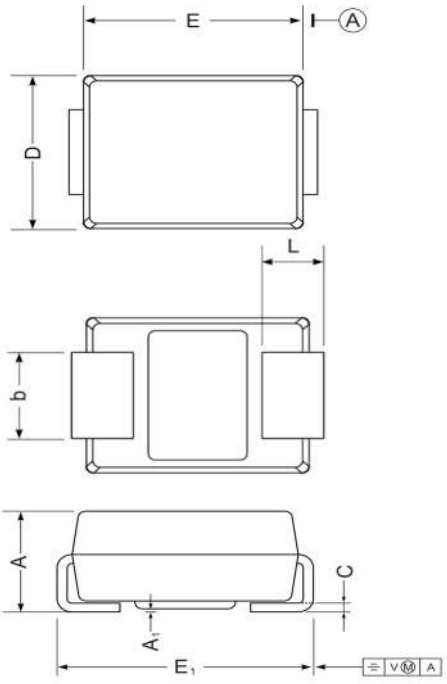


Ordering information

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

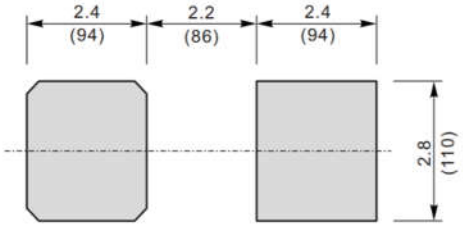
Package Dimensions

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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