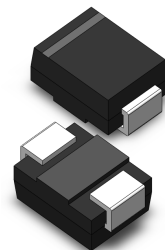


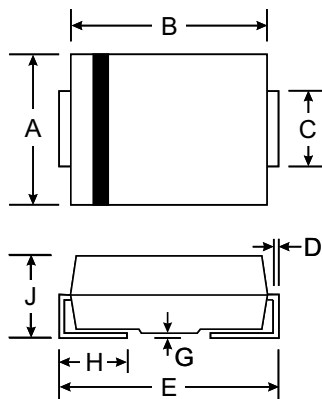
Features

- Glass passivated chip
- 600 W 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) Molded plastic
- Lead: Solderable per MIL-STD-750, method 2026
- Epoxy: UL 94V-0 rate flame retardant
- System: Accreditation through IATF16949 System
- High reliability grade (AEC Q101 qualified)
- Mounting position: Any



SMB(DO-214AA)		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Parameter	Symbols	Value	Unit
Peak power dissipation with a 10/1000 us waveform ⁽¹⁾	P _{PP}	600	W
Peak pulse current with 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 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)V_F<3.5V for devices of V_{BR}<200V and V_F<6.5V for devices of V_{BR}>201V.

Part Number		Reverse Stand-off Voltage	Breakdown Voltage V_{BR} @ I_R		Test Current	Max. Clamping Voltage @ I_{PP}	Max. Peak Pulse Current	Max. Reverse Leakage @ V_{RWM}
UNI-POLAR	BI-POLAR	$V_{RWM}(V)$	Min.(V)	Max.(V)	$I_T(mA)$	$V_{C MAX.}(V)$	$I_{PP}(A)$	$I_R(\mu A)$
TP6SMB6.8A	TP6SMB6.8CA	5.8	6.45	7.14	10	10.5	58.10	1000
TP6SMB7.5A	TP6SMB7.5CA	6.4	7.13	7.88	10	11.3	54.00	500
TP6SMB8.2A	TP6SMB8.2CA	7.0	7.79	8.61	10	12.1	50.40	200
TP6SMB9.1A	TP6SMB9.1CA	7.8	8.65	9.55	1	13.4	45.50	50
TP6SMB10A	TP6SMB10CA	8.6	9.50	10.50	1	14.5	42.10	10
TP6SMB11A	TP6SMB11CA	9.4	10.50	11.60	1	15.6	39.10	5
TP6SMB12A	TP6SMB12CA	10.2	11.40	12.60	1	16.7	36.50	5
TP6SMB13A	TP6SMB13CA	11.1	12.40	13.70	1	18.2	33.50	1
TP6SMB15A	TP6SMB15CA	12.8	14.30	15.80	1	21.2	28.80	1
TP6SMB16A	TP6SMB16CA	13.6	15.20	16.80	1	22.5	27.10	1
TP6SMB18A	TP6SMB18CA	15.3	17.10	18.90	1	25.5	24.20	1
TP6SMB20A	TP6SMB20CA	17.1	19.00	21.00	1	27.7	22.00	1
TP6SMB22A	TP6SMB22CA	18.8	20.90	23.10	1	30.6	19.90	1
TP6SMB24A	TP6SMB24CA	20.5	22.80	25.20	1	33.2	18.40	1
TP6SMB27A	TP6SMB27CA	23.1	25.70	28.40	1	37.5	16.30	1
TP6SMB30A	TP6SMB30CA	25.6	28.50	31.50	1	41.4	14.70	1
TP6SMB33A	TP6SMB33CA	28.2	31.40	34.70	1	45.7	13.30	1
TP6SMB36A	TP6SMB36CA	30.8	34.20	37.80	1	49.9	12.20	1
TP6SMB39A	TP6SMB39CA	33.3	37.10	41.00	1	53.9	11.30	1
TP6SMB43A	TP6SMB43CA	36.8	40.90	45.20	1	59.3	10.30	1
TP6SMB47A	TP6SMB47CA	40.2	44.70	49.40	1	64.8	9.40	1
TP6SMB51A	TP6SMB51CA	43.6	48.50	53.60	1	70.1	8.70	1
TP6SMB56A	TP6SMB56CA	47.8	53.20	58.80	1	77.0	7.90	1
TP6SMB62A	TP6SMB62CA	53.0	58.90	65.10	1	85.0	7.20	1
TP6SMB68A	TP6SMB68CA	58.1	64.60	71.40	1	92.0	6.60	1
TP6SMB75A	TP6SMB75CA	64.1	71.30	78.80	1	103.0	5.90	1
TP6SMB82A	TP6SMB82CA	70.1	77.90	86.10	1	113.0	5.40	1
TP6SMB91A	TP6SMB91CA	77.8	86.50	95.50	1	125.0	4.90	1
TP6SMB100A	TP6SMB100CA	85.5	95.00	105.0	1	137.0	4.50	1
TP6SMB110A	TP6SMB110CA	94.0	105.0	116.0	1	152.0	4.00	1
TP6SMB120A	TP6SMB120CA	102.0	114.0	126.0	1	165.0	3.70	1
TP6SMB130A	TP6SMB130CA	111.0	124.0	137.0	1	179.0	3.40	1
TP6SMB150A	TP6SMB150CA	128.0	143.0	158.0	1	207.0	2.90	1
TP6SMB160A	TP6SMB160CA	136.0	152.0	168.0	1	219.0	2.80	1
TP6SMB170A	TP6SMB170CA	145.0	162.0	179.0	1	234.0	2.60	1
TP6SMB180A	TP6SMB180CA	154.0	171.0	189.0	1	246.0	2.50	1
TP6SMB200A	TP6SMB200CA	171.0	190.0	210.0	1	274.0	2.20	1
TP6SMB220A	TP6SMB220CA	185.0	209.0	231.0	1	328.0	1.90	1
TP6SMB250A	TP6SMB250CA	214.0	237.0	263.0	1	344.0	1.80	1
TP6SMB300A	TP6SMB300CA	256.0	285.0	315.0	1	414.0	1.50	1
TP6SMB350A	TP6SMB350CA	300.0	332.0	368.0	1	482.0	1.30	1
TP6SMB400A	TP6SMB400CA	342.0	380.0	420.0	1	548.0	1.10	1
TP6SMB440A	TP6SMB440CA	376.0	418.0	462.0	1	602.0	1.00	1
TP6SMB480A	TP6SMB480CA	408.0	456.0	504.0	1	658.0	0.90	1
TP6SMB510A	TP6SMB510CA	434.0	485.0	535.0	1	698.0	0.90	1
TP6SMB530A	TP6SMB530CA	450.0	503.0	556.0	1	725.0	0.80	1
TP6SMB540A	TP6SMB540CA	459.0	513.0	567.0	1	740.0	0.80	1
TP6SMB550A	TP6SMB550CA	467.0	522.5	577.5	1	760.0	0.80	1
TP6SMB600A	TP6SMB600CA	509.0	570.0	630.0	1	820.0	0.75	1

Ratings and Characteristics Curves (TA=25°C unless otherwise noted)

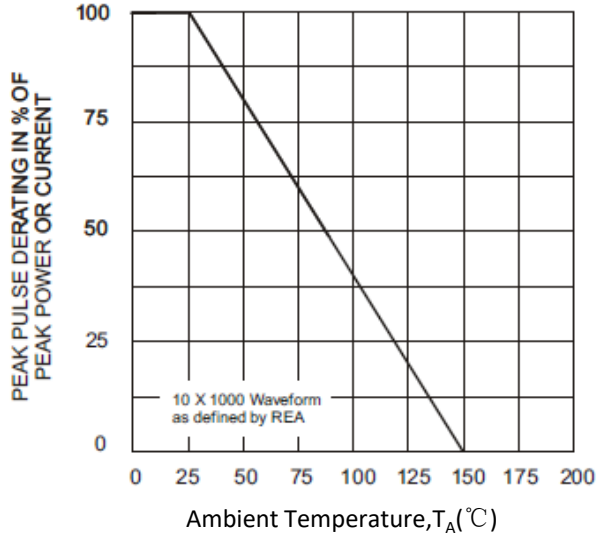


Fig. 1 - Pulse Derating Curve

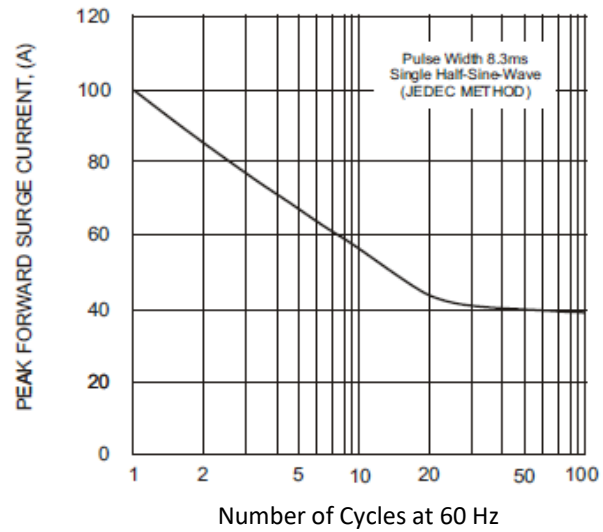


Fig. 2 - Maximum Non-Repetitive Surge Current

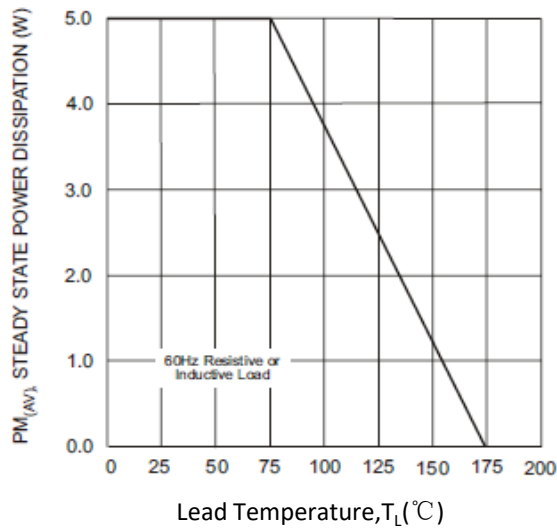


Fig. 3 - Steady State Power Derating Curve

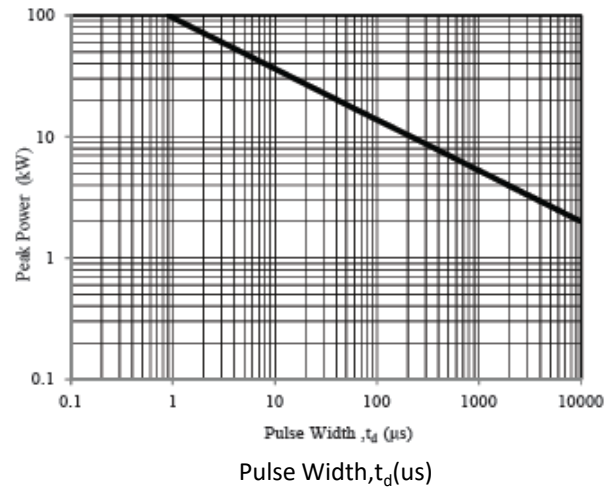


Fig. 4 - Peak Pulse Power Rating Curve

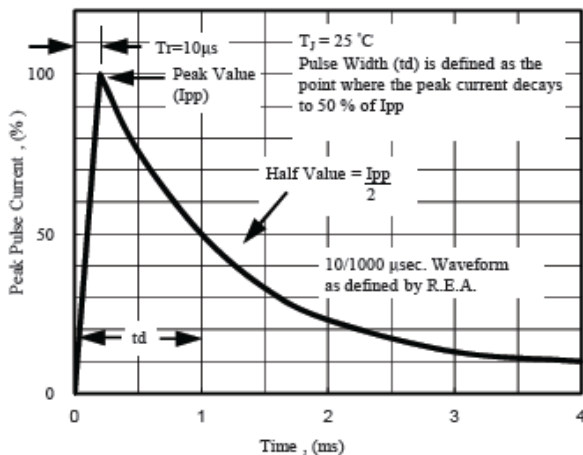


Fig. 5 - Pulse Waveform

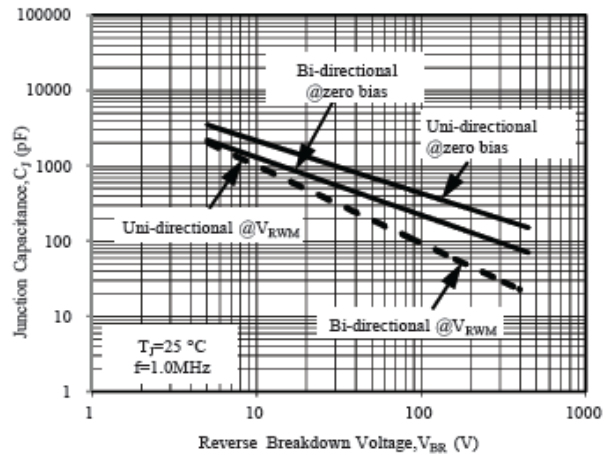


Fig. 6 - Typical Junction Capacitance