

FEATURES

- * For surface mount application
- * Built-in strain relief
- * Excellent clamping capability
- * Low profile package
- * Fast response time: Typically less than 1.0ps from 0 volt to BV min.
- * Typical I_r less than 1 A above 10V
- * High temperature soldering guaranteed: 260°C / 10 seconds at terminals

MECHANICAL DATA

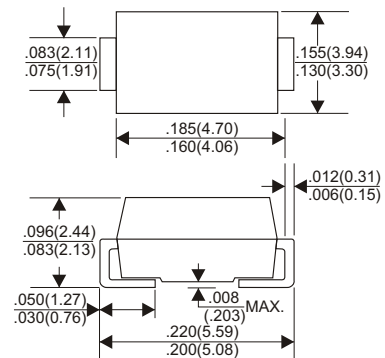
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end except Bidirectional
- * Mounting position: Any
- * Weight: 0.093 grams

VOLTAGE RANGE

6.8 to 600 Volts

600 Watts Peak Power

DO-214AA(SMB)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
 Single phase half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

RATINGS	SYMBOL	VALUE	UNITS
Peak Power Dissipation at T _A =25°C, T _P =1ms(NOTE 1)	P _{PK}	Minimum 600	Watts
Peak Forward Surge Current at 8.3ms Single Half Sine-Wave superimposed on rated load (JEDEC method) (NOTE 3)	I _{FSM}	100	Amps
Maximum Instantaneous Forward Voltage at 35.0A for Unidirectional only	V _F	3.5	Volts
Typical Thermal Resistance Between junction and case	R _{θJ-C}	20	°C/W
Typical Thermal Resistance Between junction and Air	R _{θJ-A}	95	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

NOTES:

1. Non-repetitive current pulse per Fig. 3 and derated above T_A=25°C per Fig. 2.
2. Mounted on Copper Pad area of 5.0mm²(.013mm Thick) to each terminal.
3. 8.3ms single half sine-wave, duty cycle = 4 pulses per minute maximum.

RATING AND CHARACTERISTIC CURVES (P6SMB SERIES)

FIG.1-PEAK PULSE POWER DERATING CURVE

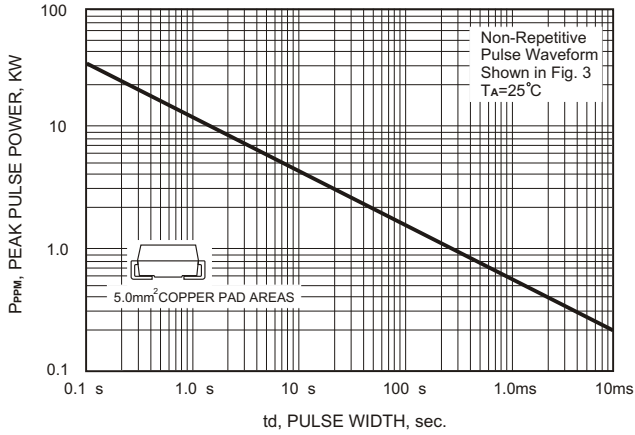


FIG.2-PULSE DERATING CURVE

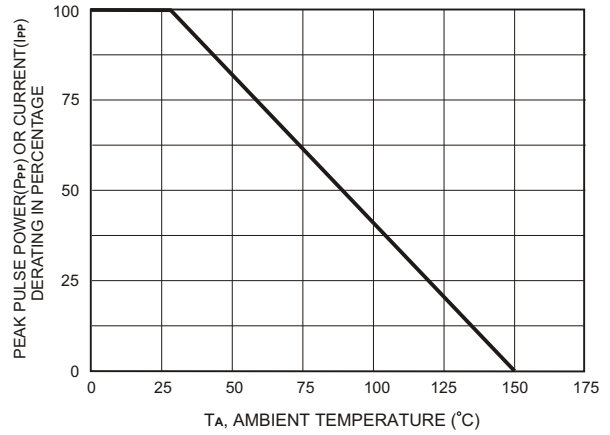


FIG.3-PULSE WAVE FORM

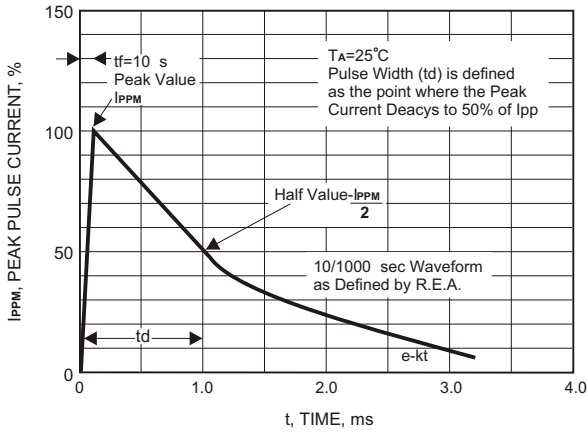


FIG.4-TYPICAL JUNCTION CAPACITANCE

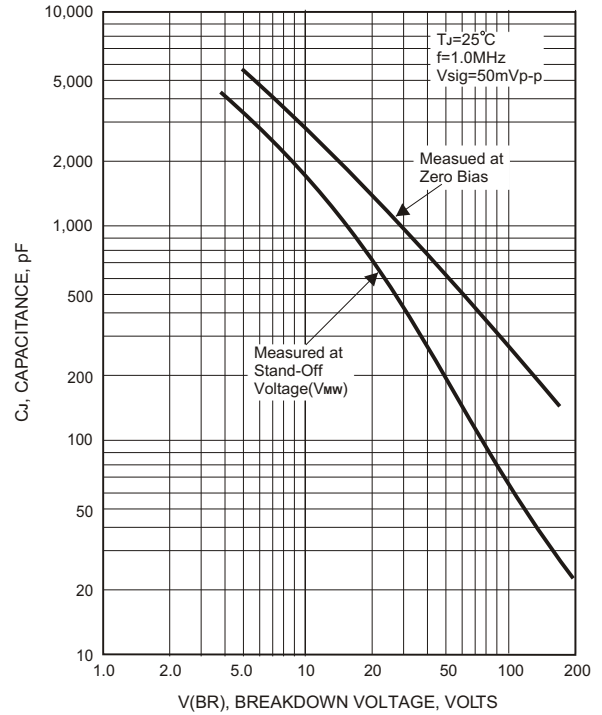
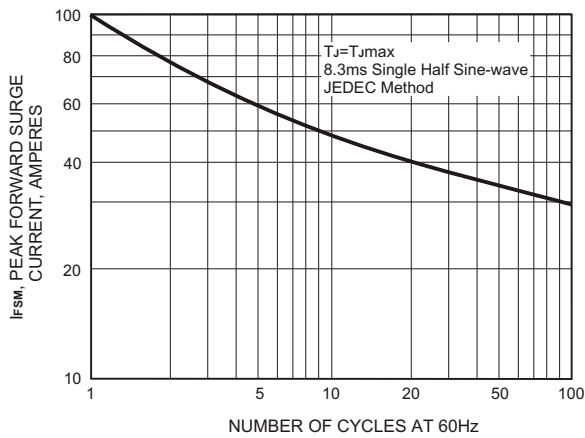


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



600 Watt Surface Mount TVS

Part Number(Uni)	Part Number(Bi)	Breakdown Voltage $V_{BR@I_T}$			Maximum Reverse Leakage $I_{R@V_{WM}}$ (μA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Current IPP (A)	Maximum Clamping Voltage $V_c @ I_{PP}$ (V)
		Min(V)	Max (V)	IT (mA)				
P6SMB6.8A	P6SMB6.8CA	6.46	7.14	10	1000	5.8	57.1	10.5
P6SMB7.5A	P6SMB7.5CA	7.13	7.88	10	500	6.4	53.1	11.3
P6SMB8.2A	P6SMB8.2CA	7.79	8.61	10	200	7.0	49.6	12.1
P6SMB9.1A	P6SMB9.1CA	8.65	9.56	1	50	7.8	44.7	13.4
P6SMB10A	P6SMB10CA	9.50	10.50	1	10	8.6	41.3	14.5
P6SMB11A	P6SMB11CA	10.45	11.55	1	5	9.4	38.4	15.6
P6SMB12A	P6SMB12CA	11.40	12.60	1	5	10.2	35.9	16.7
P6SMB13A	P6SMB13CA	12.35	13.65	1	5	11.1	32.9	18.2
P6SMB15A	P6SMB15CA	14.25	15.75	1	5	12.8	28.3	21.2
P6SMB16A	P6SMB16CA	15.20	16.80	1	5	13.6	26.6	22.5
P6SMB18A	P6SMB18CA	17.10	18.90	1	5	15.3	23.8	25.2
P6SMB20A	P6SMB20CA	19.00	21.00	1	5	17.1	21.6	27.7
P6SMB22A	P6SMB22CA	20.90	23.10	1	5	18.8	19.6	30.6
P6SMB24A	P6SMB24CA	22.80	25.20	1	5	20.5	18.1	33.2
P6SMB27A	P6SMB27CA	25.65	28.35	1	5	23.1	16.0	37.5
P6SMB30A	P6SMB30CA	28.50	31.50	1	5	25.6	14.5	41.4
P6SMB33A	P6SMB33CA	31.35	34.65	1	5	28.2	13.1	45.7
P6SMB36A	P6SMB36CA	34.20	37.80	1	5	30.8	12.0	49.9
P6SMB39A	P6SMB39CA	37.05	40.95	1	5	33.3	11.1	53.9
P6SMB43A	P6SMB43CA	40.85	45.15	1	5	36.8	10.1	59.3
P6SMB47A	P6SMB47CA	44.65	49.35	1	5	40.2	9.2	64.8
P6SMB51A	P6SMB51CA	48.45	53.55	1	5	43.6	8.5	70.1
P6SMB56A	P6SMB56CA	53.20	58.80	1	5	47.8	7.8	77.0
P6SMB62A	P6SMB62CA	58.90	65.10	1	5	53.0	7.0	85.0
P6SMB68A	P6SMB68CA	64.60	71.40	1	5	58.1	6.5	92.0
P6SMB75A	P6SMB75CA	71.25	78.75	1	5	64.1	5.8	103.0
P6SMB82A	P6SMB82CA	77.90	86.10	1	5	70.1	5.3	113.0
P6SMB91A	P6SMB91CA	86.45	95.35	1	5	77.8	4.8	125.0
P6SMB100A	P6SMB100CA	95.00	105.00	1	5	85.5	4.3	137.0
P6SMB110A	P6SMB110CA	104.50	115.50	1	5	94.0	3.9	152.0
P6SMB120A	P6SMB120CA	114.00	126.00	1	5	102.0	3.6	165.0
P6SMB130A	P6SMB130CA	123.50	136.50	1	5	111.0	3.3	179.0
P6SMB150A	P6SMB150CA	142.50	157.50	1	5	128.0	2.9	207.0
P6SMB160A	P6SMB160CA	152.00	168.00	1	5	136.0	2.7	219.0
P6SMB170A	P6SMB170CA	161.50	178.50	1	5	145.0	2.5	234.0
P6SMB180A	P6SMB180CA	171.00	189.00	1	5	154.0	2.4	246.0
P6SMB200A	P6SMB200CA	190.00	210.00	1	5	171.0	2.2	274.0
P6SMB220A	P6SMB220CA	209.00	231.00	1	5	185.0	1.8	328.0
P6SMB250A	P6SMB250CA	237.50	262.50	1	5	214.0	1.7	344.0
P6SMB300A	P6SMB300CA	285.00	315.00	1	5	256.0	1.4	414.0
P6SMB350A	P6SMB350CA	332.50	367.50	1	5	299.3	1.2	482.0
P6SMB380A	P6SMB380CA	361.00	399.00	1	5	324.9	1.1	524.4
P6SMB400A	P6SMB400CA	380.00	420.00	1	5	342.0	1.1	548.0
P6SMB440A	P6SMB440CA	418.00	462.00	1	5	376.2	1.0	607.2
P6SMB500A	P6SMB500CA	475.00	525.00	1	5	427.5	0.8	690.0
P6SMB520A	P6SMB520CA	494.00	546.00	1	5	444.6	0.8	717.6
P6SMB550A	P6SMB550CA	522.50	577.50	1	5	470.3	0.8	759.0
P6SMB600A	P6SMB600CA	570.00	630.00	1	5	513.0	0.7	828.0

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