



CHENMKO ENTERPRISE CO.,LTD

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR
VOLTAGE-6.8 TO 200 VOLTS
600 WATTS PEAK POWER 5.0 WATTS STEADY STATE

P6SBMJ
CA SERIES

Lead free devices

FEATURES

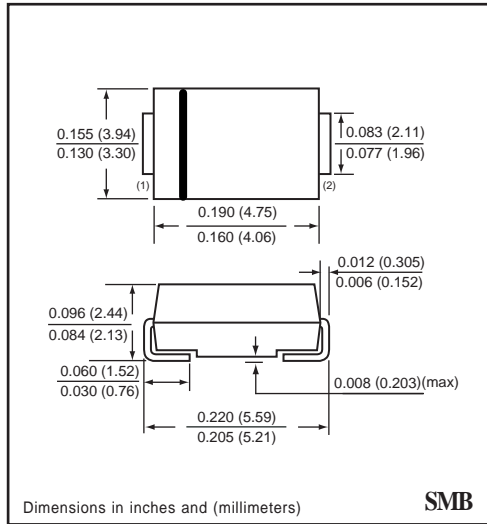
- * Plastic package
- * 600W surge capability at 1ms
- * Glass passivated chip junction in SMB Package
- * Excellent clamping capability
- * Low Zener Impedance
- * Fast response time: typically less than 1.0ps from 0 volts to BV min.
- * Typical IR less than 1 uA above 10V
- * High temperature soldering guaranteed : 260°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC SMB molded plastic
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Bidirectional
Mounting Position: Any
Weight: 0.003 ounce 0.093 gram



SMB



Dimensions in inches and (millimeters)

SMB

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

DEVICES FOR BIDIRECTIONAL APPLICATIONS

For Bidirectional use C or CA Suffix for types P6SBMJ6.8A thru types P6SBMJ200A
 Electrical characteristics apply in both directions.

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	VALUE	UNITS
Peak Power Dissipation at TA = 25°C, Tp = 1ms (Note1)	PPK	Minimum 600	Watts
Steady State Power Dissipation at TL = 75°C	PD	5.0	Watts
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (Note 2)	IFSM	100	Amps
Operating and Storage Temperature Range	TJ, TSTG	-65 to +175	°C

NOTES : 1. Non-repetitive current pulse, per Fig. 3 and derated above TA = 25°C per Fig. 2.
 2. 8.3ms single half sine-wave, duty cycle = 4 pulses per minute maximum.
 3. PC Board Mounted on 0.2 X 0.2" (5 X 5mm) copper pad area

2003-01

PRODUCT NO.	Breakdown Voltage				Working Peak Reverse Voltage	Maximum Reverse Leakage at Vrwm	Maximum Reverse Current (NOTE 2)	Maximum Reverse Voltage at Irsm (clamping)	Maximum Temperature Coefficient of Vbr
	VBR Volts (NOTE 1)			@ IT (mA)					
	MIN.	NOM.	MAX.		Vrwm (V)	Ir (uA)	Irsm (A)	Vrsm (V)	(%C)
P6SBMJ6.8CAPT	6.45	6.8	7.14	10	5.80	2000	57	10.5	0.057
P6SBMJ7.5CAPT	7.13	7.5	7.88	10	6.40	1000	53	11.3	0.061
P6SBMJ8.2CAPT	7.79	8.2	8.61	10	7.02	400	50	12.1	0.065
P6SBMJ9.1CAPT	8.65	9.1	9.55	1.0	7.78	100	45	13.4	0.068
P6SBMJ10CAPT	9.5	10	10.5	1.0	8.55	20	41	14.5	0.073
P6SBMJ11CAPT	10.5	11	11.6	1.0	9.40	10	38	15.6	0.075
P6SBMJ12CAPT	11.4	12	12.6	1.0	10.2	5.0	36	16.7	0.078
P6SBMJ13CAPT	12.4	13	13.7	1.0	11.1	5.0	33	18.2	0.081
P6SBMJ15CAPT	14.3	15	15.8	1.0	12.8	5.0	28	21.2	0.084
P6SBMJ16CAPT	15.2	16	16.8	1.0	13.6	5.0	27	22.5	0.086
P6SBMJ18CAPT	17.1	18	18.9	1.0	15.3	5.0	24	25.2	0.088
P6SBMJ20CAPT	19.0	20	21.0	1.0	17.1	5.0	22	27.7	0.090
P6SBMJ22CAPT	20.9	22	23.1	1.0	18.8	5.0	20	30.6	0.092
P6SBMJ24CAPT	22.8	24	25.2	1.0	20.5	5.0	18	33.2	0.094
P6SBMJ27CAPT	25.7	27	28.4	1.0	23.1	5.0	16	37.5	0.096
P6SBMJ30CAPT	28.5	30	31.5	1.0	25.6	5.0	14.4	41.4	0.097
P6SBMJ33CAPT	31.4	33	34.7	1.0	28.2	5.0	13.2	45.7	0.098
P6SBMJ36CAPT	34.2	36	37.8	1.0	30.8	5.0	12.0	49.9	0.099
P6SBMJ39CAPT	37.1	39	41.0	1.0	33.3	5.0	11.2	53.9	0.100
P6SBMJ43CAPT	40.9	43	45.2	1.0	36.8	5.0	10.1	59.3	0.101
P6SBMJ47CAPT	44.7	47	49.4	1.0	40.2	5.0	9.3	64.8	0.101
P6SBMJ51CAPT	48.5	51	53.6	1.0	43.6	5.0	8.6	70.1	0.102
P6SBMJ56CAPT	53.2	56	58.8	1.0	47.8	5.0	7.8	77.0	0.103
P6SBMJ62CAPT	58.9	62	65.1	1.0	53.0	5.0	7.1	85.0	0.104
P6SBMJ68CAPT	64.6	68	71.4	1.0	58.0	5.0	6.5	92.0	0.104
P6SBMJ75CAPT	71.3	75	78.8	1.0	64.1	5.0	5.8	103	0.105
P6SBMJ82CAPT	77.9	82	86.1	1.0	70.1	5.0	5.3	113	0.105
P6SBMJ91CAPT	86.5	91	95.5	1.0	77.8	5.0	4.8	125	0.106
P6SBMJ100CAPT	95.0	100	105	1.0	85.5	5.0	4.4	137	0.106
P6SBMJ110CAPT	105	110	116	1.0	94.0	5.0	4.0	152	0.107
P6SBMJ120CAPT	114	120	126	1.0	102	5.0	3.6	165	0.107
P6SBMJ130CAPT	124	130	137	1.0	111	5.0	3.3	179	0.107
P6SBMJ150CAPT	143	150	158	1.0	128	5.0	2.9	207	0.108
P6SBMJ160CAPT	152	160	168	1.0	136	5.0	2.7	219	0.108
P6SBMJ170CAPT	162	170	179	1.0	145	5.0	2.6	234	0.108
P6SBMJ180CAPT	171	180	189	1.0	154	5.0	2.4	246	0.108
P6SBMJ200CAPT	190	200	210	1.0	171	5.0	2.2	274	0.108

RATING CHARACTERISTIC CURVES (P6SBMJ6.8CAPT ~ P6SBMJ200CAPT)

FIG. 1 - PEAK PULSE POWER RATING CURVE

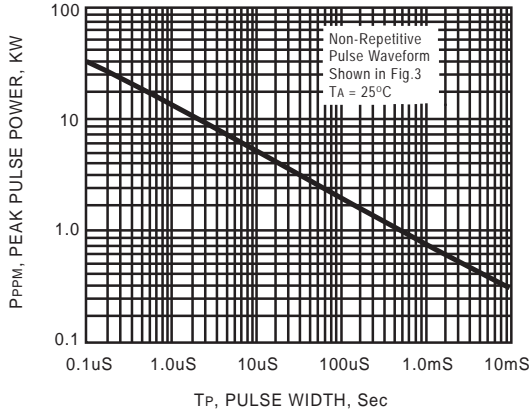


FIG. 2 - PULSE DERATING CURVE

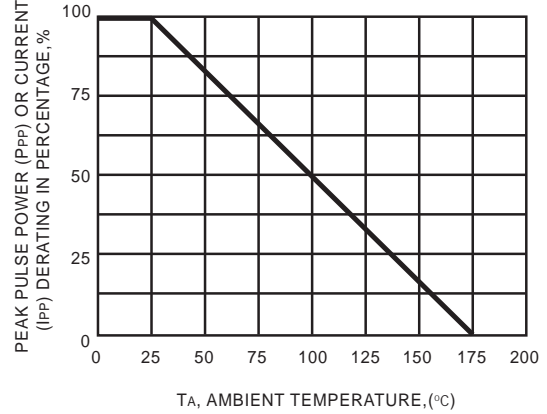


FIG. 3 - PULSE WAVEFORM

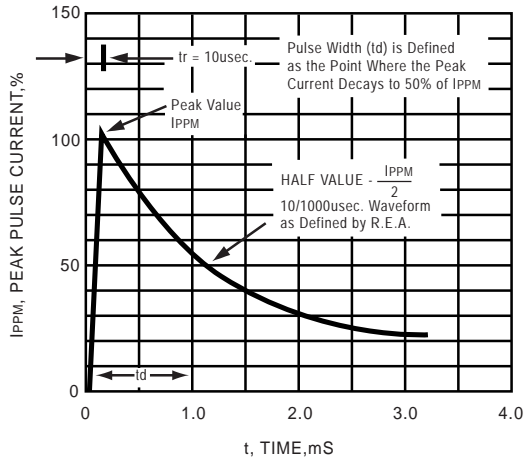
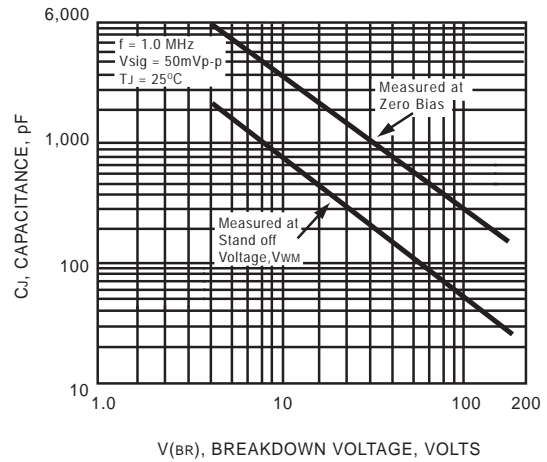


FIG. 4 - TYPICAL JUNCTION CAPACITANCE UNI-DIRECTIONAL



RATING CHARACTERISTIC CURVES (P6SMAJ6.8CAPT ~ P6SMAJ200CAPT)

FIG. 5 - STEADY STATE POWER DERATING CURVE

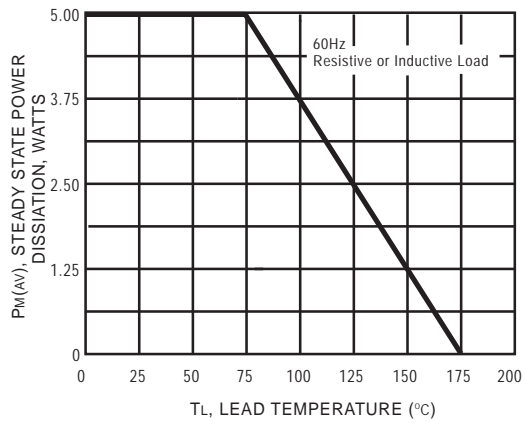


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT UNI-DIRECTIONAL

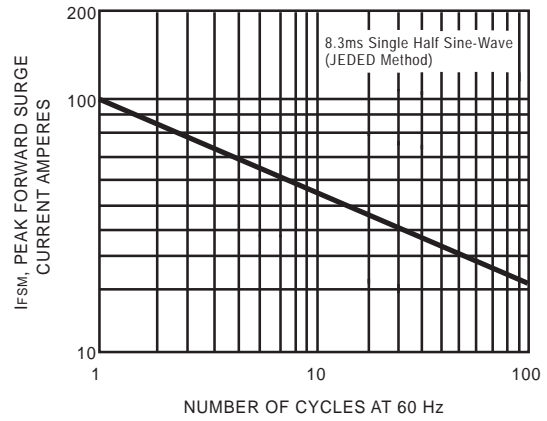


FIG. 7 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

