

## TRANSIENT VOLTAGE SUPPRESSOR

### FEATURE

- ✧ Plastic package.
- ✧ Glass passivated chip junction in SMB Package
- ✧ Excellent clamping capability.
- ✧ Low zener impedance.
- ✧ 600W peak pulse power capability on 10/1000µs waveform.
- ✧ Typical IR less than 1µA above 13V.
- ✧ Fast response time: typically less than 1.0ps from 0 Volts to BV min.
- ✧ High temperature soldering guaranteed: 265°C/10 seconds

### MECHANICAL DATE

- ✧ Case: JEDEC SMB Molded Plastic.
- ✧ Terminals: Axial leads, solderable per MIL-STD-750, Method 2026.
- ✧ Polarity: Color band denoted cathode except bidirectional.
- ✧ Mounting Position: Any.

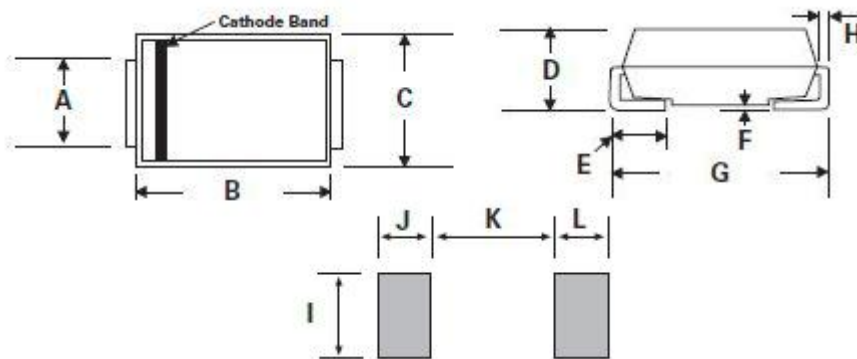
### MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25c ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000us waveform (Notel, Fig. 1).	P <sub>PPM</sub>	Minimum 600	Watts
Peak Pulse Current of on 10/1000us waveform. (Notel, Fig. 3)	I <sub>PPM</sub>	See Table	Amps
Steady State Power Dissipation at TL =75°C, Lead lengths. 375", (9.5mm) (Fig. 5).	P <sub>M(AV)</sub>	5.0	Watts
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method) (Note 2, Fig. 6).	I <sub>FSM</sub>	100	Amps
Operating junction and Storage Temperature Range.	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°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, or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.



Item	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.95	2.2	0.077	0.086
B	4.06	4.57	0.16	0.18
C	3.3	3.94	0.13	0.155
D	2.13	2.44	0.084	0.096
E	0.76	1.52	0.03	0.06
F	-	0.203	-	0.008
G	5.21	5.59	0.205	0.22
H	0.152	0.305	0.006	0.012
I	2.26	-	0.089	-
J	2.16	-	0.085	-
K	-	2.74	-	0.107
L	2.16	-	0.085	-

## ELECTRICAL CHARACTERISTICS

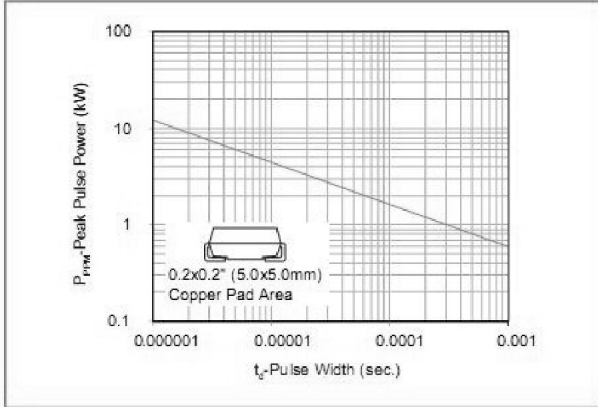
Part Number		Marking		Reverse Stand-Off Voltage	Breakdown Voltage NIN.@IT	Breakdown Voltage MAX.@IT	Reverse Leakage @VRWM	Test Current	Peak Pulse Current	Maximum Clamping Voltage
UNT	BI	UNT	BI	VR(V)	VBL(V)	VBH(V)	IR(uA)	IT(mA)	IPP(A)	VCH(V)
KSMBJ5.0A	KSMBJ5.0CA	KE	AE	5.0	6.40	7.00	800	10	65.3	9.2
KSMBJ6.0A	KSMBJ6.0CA	KG	AG	6.0	6.67	7.37	800	10	58.3	10.3
KSMBJ6.5A	KSMBJ6.5CA	KK	AK	6.5	7.22	7.98	500	10	53.6	11.2
KSMBJ7.0A	KSMBJ7.0CA	KM	AM	7.0	7.78	8.60	200	10	50.0	12.0
KSMBJ7.5A	KSMBJ7.5CA	KP	AP	7.5	8.33	9.21	100	1	46.6	12.9
KSMBJ8.0A	KSMBJ8.0CA	KR	AR	8.0	8.89	9.83	50	1	44.2	13.6
KSMBJ8.5A	KSMBJ8.5CA	KT	AT	8.5	9.44	10.40	20	1	41.7	14.4
KSMBJ9.0A	KSMBJ9.0CA	KV	AV	9.0	10.00	11.10	10	1	39.0	15.4
KSMBJ10A	KSMBJ10CA	KX	AX	10	11.10	12.30	5	1	35.3	17.0
KSMBJ11A	KSMBJ11CA	KZ	AZ	11	12.20	13.50	1	1	33.0	18.2
KSMBJ12A	KSMBJ12CA	LE	BE	12	13.30	14.70	1	1	30.2	19.9
KSMBJ13A	KSMBJ13CA	LG	BG	13	14.40	15.90	1	1	28.0	21.5

Part Number		Marking		Reverse Stand-Off Voltage	Breakdown Voltage NIN.@IT	Breakdown Voltage MAX.@IT	Reverse Leakage @VRWM	Test Current	Peak Pulse Current	Maximum Clamping Voltage @IPP
UNT	BI	UNT	BI	VR(V)	VBL(V)	VBH(V)	IR(uA)	IT(mA)	IPP(A)	VCH(V)
KSMBJ14A	KSMBJ14CA	LK	BK	14	15.60	17.20		1	25.9	23.2
KSMBJ15A	KSMBJ15CA	LM	BM	15	16.70	18.50	1	1	24.6	24.4
KSMBJ16A	KSMBJ16CA	LP	BP	16	17.80	19.70	1	1	23.1	26.0
KSMBJ17A	KSMBJ17CA	LR	BR	17	18.90	20.90	1	1	21.8	27.6
KSMBJ18A	KSMBJ18CA	LT	BT	18	20.00	22.10	1	1	20.6	29.2
KSMBJ20A	KSMBJ20CA	LV	BV	20	22.20	24.50	1	1	18.6	32.4
KSMBJ22A	KSMBJ22CA	LX	BX	22	24.40	26.90	1	1	16.9	35.5
KSMBJ24A	KSMBJ24CA	LZ	BZ	24	26.70	29.50	1	1	15.5	38.9
KSMBJ26A	KSMBJ26CA	ME	CE	26	28.90	31.90	1	1	14.3	42.1
KSMBJ28A	KSMBJ28CA	MG	CG	28	31.10	34.40	1	1	13.3	45.4
KSMBJ30A	KSMBJ30CA	MK	CK	30	33.30	36.80	1	1	12.4	48.4
KSMBJ33A	KSMBJ33CA	MM	CM	33	36.70	40.60	1	1	11.3	53.3
KSMBJ36A	KSMBJ36CA	MP	CP	36	40.00	44.20	1	1	10.4	58.1
KSMBJ40A	KSMBJ40CA	MR	CR	40	44.40	49.10	1	1	9.3	64.5
KSMBJ43A	KSMBJ43CA	MT	CT	43	47.80	52.80	1	1	8.7	69.4
KSMBJ45A	KSMBJ45CA	MV	CV	45	50.00	55.30	1	1	8.3	72.7
KSMBJ48A	KSMBJ48CA	MX	CX	48	53.30	58.90	1	1	7.8	77.4
KSMBJ51A	KSMBJ51CA	MZ	CZ	51	56.70	62.70	1	1	7.3	82.4
KSMBJ54A	KSMBJ54CA	NE	DE	54	60.00	66.30	1	1	6.9	87.1
KSMBJ58A	KSMBJ58CA	NG	DG	58	64.40	71.20	1	1	6.5	93.6
KSMBJ60A	KSMBJ60CA	NK	DK	60	66.70	73.70	1	1	6.2	96.8
KSMBJ64A	KSMBJ64CA	NM	DM	64	71.10	78.60	1	1	5.9	103
KSMBJ70A	KSMBJ70CA	NP	DP	70	77.80	86.00	1	1	5.3	113
KSMBJ75A	KSMBJ75CA	NR	DR	75	83.30	92.10	1	1	5.0	121
KSMBJ78A	KSMBJ78CA	NT	DT	78	86.70	95.80	1	1	4.8	126
KSMBJ85A	KSMBJ85CA	NV	DV	85	94.4	104.0	1	1	4.4	137
KSMBJ90A	KSMBJ90CA	NX	DX	90	100.0	111.0	1	1	4.1	146
KSMBJ100A	KSMBJ100CA	NZ	DZ	100	111.0	123.0	1	1	3.7	162
KSMBJ110A	KSMBJ110CA	PE	EE	110	122.0	135.0	1	1	3.4	177
KSMBJ120A	KSMBJ120CA	PG	EG	120	133.0	147.0	1	1	3.1	193
KSMBJ130A	KSMBJ130CA	PK	EK	130	144.0	159.0	1	1	2.9	209
KSMBJ150A	KSMBJ150CA	PM	EM	150	167.0	185.0	1	1	2.5	243
KSMBJ160A	KSMBJ160CA	PP	EP	160	178.0	197.0	1	1	2.3	259
KSMBJ170A	KSMBJ170CA	PR	ER	170	189.0	209.0	1	1	2.2	275
KSMBJ180A	KSMBJ180CA	PT	ET	180	201.0	222.0	1	1	2.1	292
KSMBJ190A	KSMBJ190CA	PA	EC	190	209.0	243.0	1	1	2.0	308
KSMBJ200A	KSMBJ200CA	PV	EV	200	224.0	247.0	1	1	1.9	324
KSMBJ220A	KSMBJ220CA	PX	EX	220	246.0	272.0	1	1	1.7	356
KSMBJ250A	KSMBJ250CA	PZ	EZ	250	279.0	309.0	1	1	1.5	405
KSMBJ300A	KSMBJ300CA	QE	FE	300	335.0	371.0	1	1	1.3	486
KSMBJ350A	KSMBJ350CA	QG	FG	350	391.0	432.0	1	1	1.1	567
KSMBJ400A	KSMBJ400CA	QK	FK	400	447.0	494.0	1	1	0.9	648
KSMBJ440A	KSMBJ440CA	QM	FM	440	492.0	543.0	1	1	0.9	713

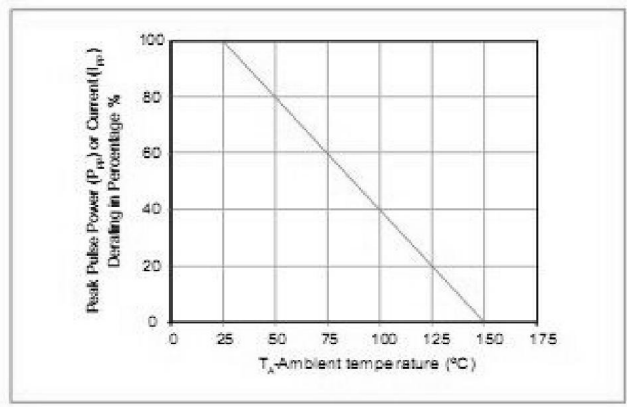
Notes: For bidirectional type having VRWM of 10 volts and less, the IR limit is double

**RATINGS AND CHARACTERISTIC CURVES** (TA=25°C unless otherwise noted)

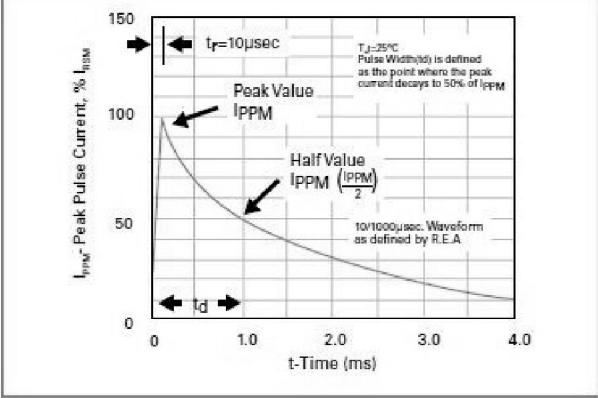
**Figure 1 - Peak Pulse Power Rating Curve**



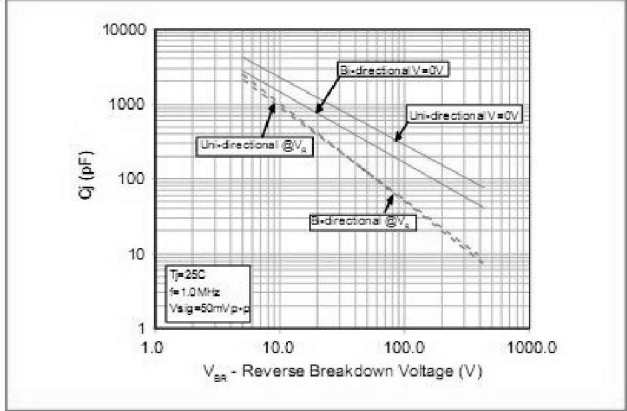
**Figure 2 - Pulse Derating Curve**



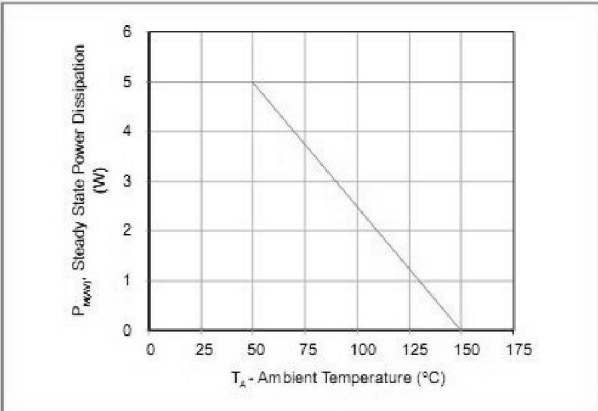
**Figure 3 - Pulse Waveform**



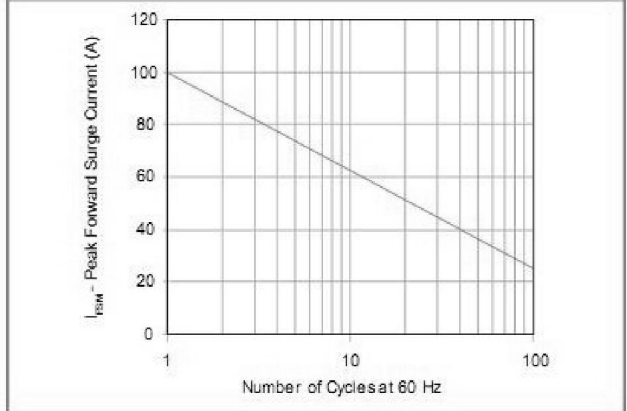
**Figure 4 - Typical Junction Capacitance Uni-Directional**



**Figure 5 - Steady State Power Dissipation Derating Curve**



**Figure 6 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only**



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