

**SURFACE MOUNT
UNIDIRECTIONAL AND BIDIRECTIONAL
TRANSIENT VOLTAGE SUPPRESSORS**

REVERSE VOLTAGE - **6.8 to 440** Volts
POWER DISSIPATION - **400** WATTS

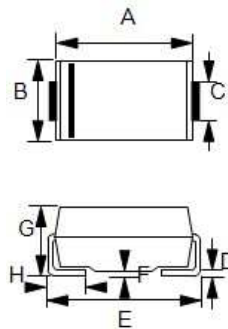
FEATURES

- For surface mounted applications
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has UL flammability classification 94V-0
- Typical IR less than 1uA above 10V
- Fast response time: typically less than 1.0ns for Uni-direction, less than 5.0ns for Bi-direction, from 0 Volts to BV min
- RoHS compliant
- Qualified to AEC-Q101 Rev_C
- IEC6100-4-2, >±30KV(air); >±30KV(Contact).(Note.4)

MECHANICAL DATA

- Case : Molded plastic
- Case Material: Molding compound, UL Flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
- Polarity : by cathode band denotes uni-directional device
none cathode band denotes bi-directional device
- Weight : 0.002 ounces, 0.064 gram

SMA



SMA		
DIM.	MIN.	MAX.
A	4.06	4.57
B	2.29	2.92
C	1.27	1.63
D	0.15	0.31
E	4.83	5.59
F	0.05	0.20
G	1.96	2.40
H	0.76	1.52

All Dimensions in millimeter

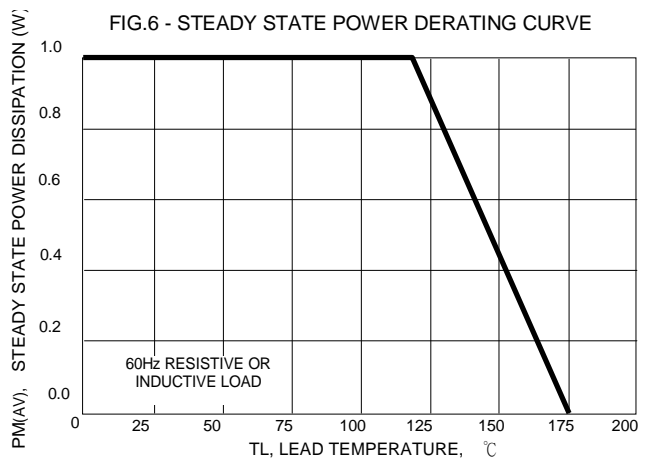
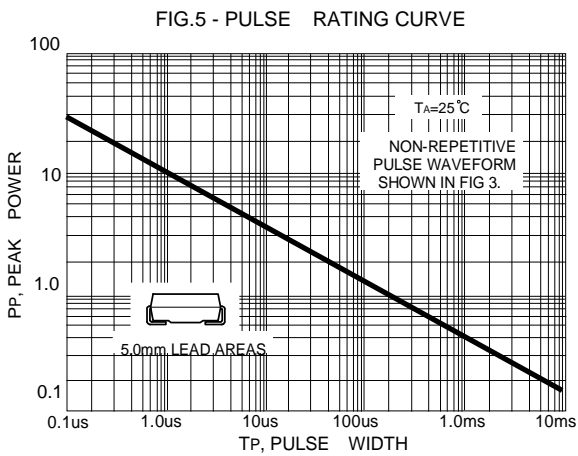
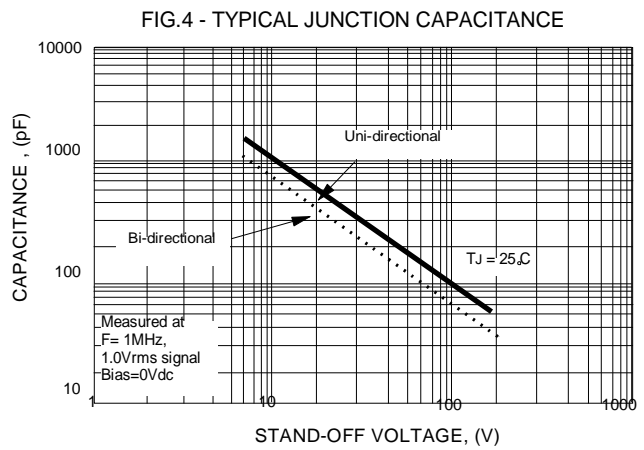
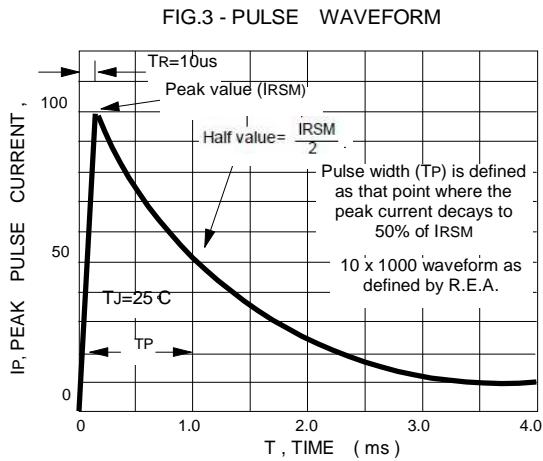
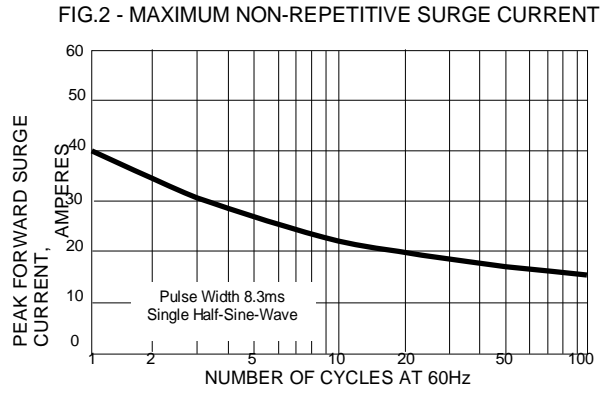
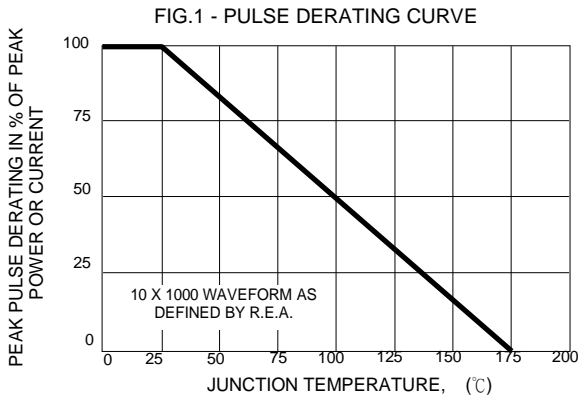
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOLS	VALUE	UNIT
Peak Power Dissipation at T _J = 25 °C, T _P = 1ms (Note 1)	P _{PK}	400	WATTS
Peak Forward Surge Current 8.3ms single half sine-wave @ T _J = 25 °C (Note 2)	I _{FSM}	40	AMPS.
Steady State Power Dissipation at T _L = 120 °C	P _{M(AV)}	1.0	WATTS
Maximum Instantaneous forward voltage at 16A (Note 2, 3)	V _F	3.0	Volts
Operating Temperature Range	T _J	-55 to +175	°C
Storage Temperature Range	T _{STG}	-55 to +175	°C

- NOTES : 1. Non-repetitive current pulse, per fig. 3 and derated above T_A = 25 °C per fig.1.
 2. Only for unidirectional units.
 3. V_F max=3V at I_F=16 A 300us square wave pulse.
 4. PSMAJ6.8 thru PSMAJ120 devices that comply IEC 61000-4-2 levels.

REV. 5, Jan-2017, KSIA05



Device Uni-Directional	Device Bi-Directional	Device Marking Code		Reverse Standoff Voltage	Breakdown Voltage VBR Volts			Max. Clamping Voltage @Ipp	Max. Peak Pulse Current	Max. Reverse Leake @ VR
		(UNI)	(BI)		VR (V)	Min.	Max.			
PSMAJ6.8A	PSMAJ6.8CA	6V8A	6V8C	5.8	6.45	7.13	10	10.5	38.1	1000
PSMAJ7.5A	PSMAJ7.5CA	7V5A	7V5C	6.4	7.13	7.88	10	11.3	35.4	500
PSMAJ8.2A	PSMAJ8.2CA	8V2A	8V2C	7.02	7.79	8.61	10	12.1	33.1	200
PSMAJ9.1A	PSMAJ9.1CA	9V1A	9V1C	7.78	8.65	9.56	1.0	13.4	29.9	50
PSMAJ10A	PSMAJ10CA	10A	10C	8.55	9.50	10.5	1.0	14.5	27.6	10
PSMAJ11A	PSMAJ11CA	11A	11C	9.4	10.5	11.6	1.0	15.6	25.6	5
PSMAJ12A	PSMAJ12CA	12A	12C	10.2	11.4	12.6	1.0	16.7	24.0	0.5
PSMAJ13A	PSMAJ13CA	13A	13C	11.1	12.4	13.7	1.0	18.2	22.0	0.5
PSMAJ15A	PSMAJ15CA	15A	15C	12.8	14.3	15.8	1.0	21.2	18.9	0.5
PSMAJ16A	PSMAJ16CA	16A	16C	13.6	15.2	16.8	1.0	22.5	17.8	0.5
PSMAJ18A	PSMAJ18CA	18A	18C	15.3	17.1	18.9	1.0	25.2	15.9	0.5
PSMAJ20A	PSMAJ20CA	20A	20C	17.1	19.0	21.0	1.0	27.7	14.4	0.5
PSMAJ22A	PSMAJ22CA	22A	22C	18.8	20.9	23.1	1.0	30.6	13.1	0.5
PSMAJ24A	PSMAJ24CA	24A	24C	20.5	22.8	25.2	1.0	33.2	12.0	0.5
PSMAJ27A	PSMAJ27CA	27A	27C	23.1	25.7	28.4	1.0	37.5	10.7	0.5
PSMAJ30A	PSMAJ30CA	30A	30C	25.6	28.5	31.5	1.0	41.4	9.7	0.5
PSMAJ33A	PSMAJ33CA	33A	33C	28.2	31.4	34.7	1.0	45.7	8.8	0.5
PSMAJ36A	PSMAJ36CA	36A	36C	30.8	34.2	37.8	1.0	49.9	8.0	0.5
PSMAJ39A	PSMAJ39CA	39A	39C	33.3	37.1	41.0	1.0	53.9	7.4	0.5
PSMAJ43A	PSMAJ43CA	43A	43C	36.8	40.9	45.2	1.0	59.3	6.7	0.5
PSMAJ47A	PSMAJ47CA	47A	47C	40.2	44.7	49.4	1.0	64.8	6.2	0.5
PSMAJ51A	PSMAJ51CA	51A	51C	43.6	48.5	53.6	1.0	70.1	5.7	0.5
PSMAJ56A	PSMAJ56CA	56A	56C	47.8	53.2	58.8	1.0	77.0	5.2	0.5
PSMAJ62A	PSMAJ62CA	62A	62C	53.0	58.9	65.1	1.0	85.0	4.7	0.5
PSMAJ68A	PSMAJ68CA	68A	68C	58.1	64.6	71.4	1.0	92.0	4.3	0.5
PSMAJ75A	PSMAJ75CA	75A	75C	64.7	71.3	78.8	1.0	103.0	3.9	0.5
PSMAJ82A	PSMAJ82CA	82A	82C	70.1	77.9	86.1	1.0	113.0	3.5	0.5
PSMAJ91A	PSMAJ91CA	91A	91C	77.8	86.5	95.6	1.0	125.0	3.2	0.5
PSMAJ100A	PSMAJ100CA	100A	100C	85.5	95.0	105.0	1.0	137.0	2.9	0.5
PSMAJ110A	PSMAJ110CA	110A	110C	94.0	105.0	116.1	1.0	152.0	2.6	0.5
PSMAJ120A	PSMAJ120CA	120A	120C	102.0	114.0	126.0	1.0	165.0	2.4	0.5
PSMAJ130A	PSMAJ130CA	130A	130C	111.0	124.0	137.1	1.0	179.0	2.2	0.5
PSMAJ150A	PSMAJ150CA	150A	150C	128.0	143.0	158.1	1.0	207.0	1.9	0.5
PSMAJ160A	PSMAJ160CA	160A	160C	136.0	152.0	168.0	1.0	219.0	1.8	0.5
PSMAJ170A	PSMAJ170CA	170A	170C	145.0	162.0	179.1	1.0	234.0	1.7	0.5
PSMAJ180A	PSMAJ180CA	180A	180C	154.0	171.0	189.0	1.0	246.0	1.6	0.5
PSMAJ200A	PSMAJ200CA	200A	200C	171.0	190.0	210.0	1.0	274.0	1.5	0.5
PSMAJ220A	PSMAJ220CA	220A	220C	185.0	209.0	231.0	1.0	328.0	1.2	0.5
PSMAJ250A	PSMAJ250CA	250A	250C	214.0	237.0	262.0	1.0	344.0	1.2	0.5
PSMAJ300A	PSMAJ300CA	300A	300C	256.0	285.0	315.0	1.0	414.0	1.0	0.5
PSMAJ350A	PSMAJ350CA	350A	350C	300.0	332.0	367.0	1.0	482.0	0.83	0.5
PSMAJ400A	PSMAJ400CA	400A	400C	342.0	380.0	420.0	1.0	548.0	0.73	0.5
PSMAJ440A	PSMAJ440CA	440A	440C	376.0	418.0	462.0	1.0	602.0	0.66	0.5

NOTE :

Suffix 'A' denotes 5% tolerance device.

1. Add suffix 'C' or 'CA' after part number to specify Bi-directional devices.
2. The IR limit is double for Bi-Directional devices.

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