

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

REVERSE VOLTAGE - **6.8 to 120** Volts
POWER DISSIPATION - **400** WATTS

FEATURES

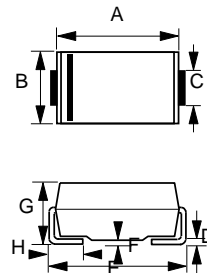


- For surface mounted applications
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has UL flammability classification 94V-0
- IR less than 0.5uA above 11V
- Fast response time: typically less than 1.0ns for Uni-direction, less than 5.0ns for Bi-direction, from 0 Volts to BV min
- RoHS compliant
- AEC-Q101 qualified
- PPAP capable
- Automotive grade

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 with PCB	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.

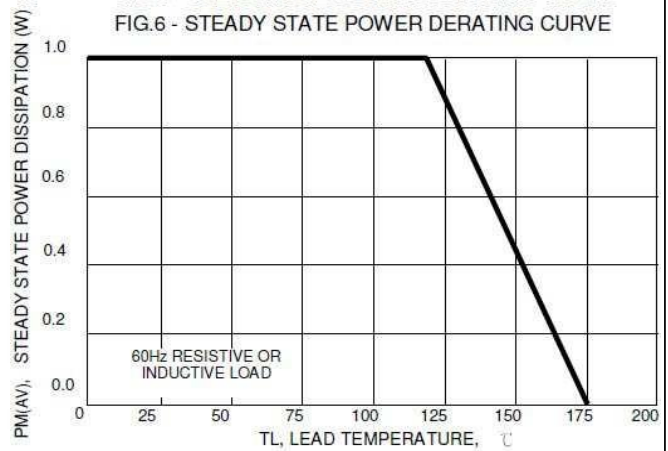
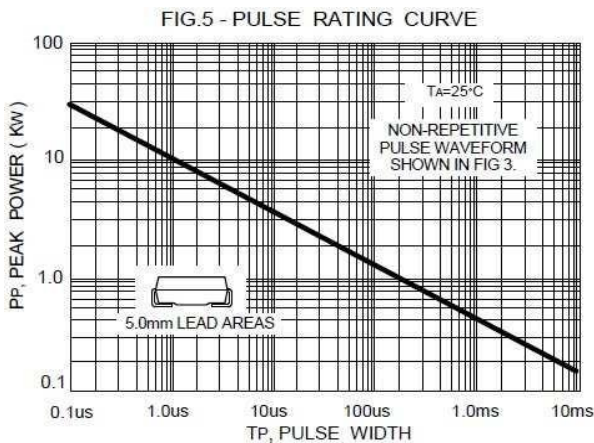
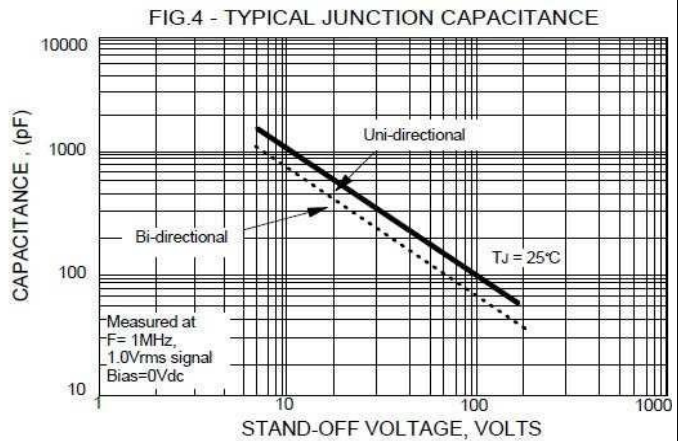
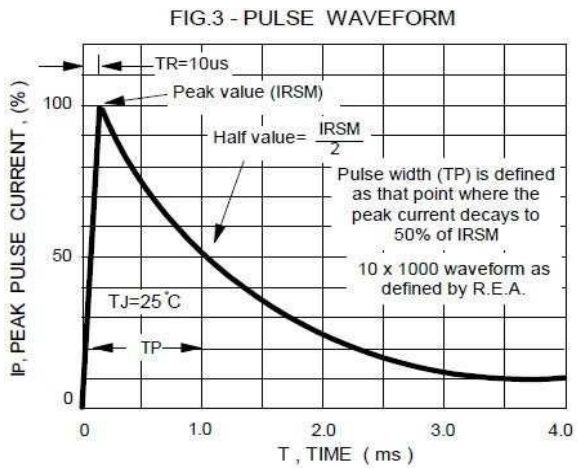
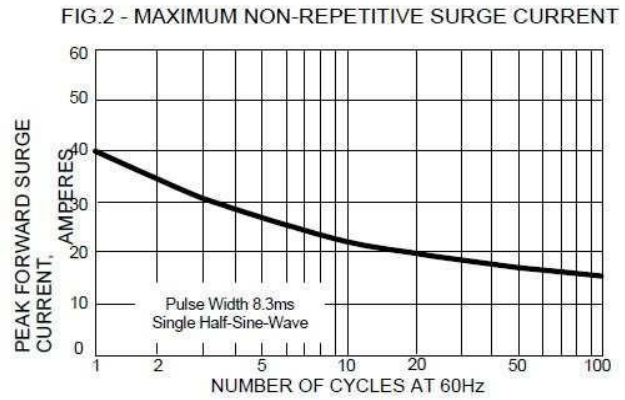
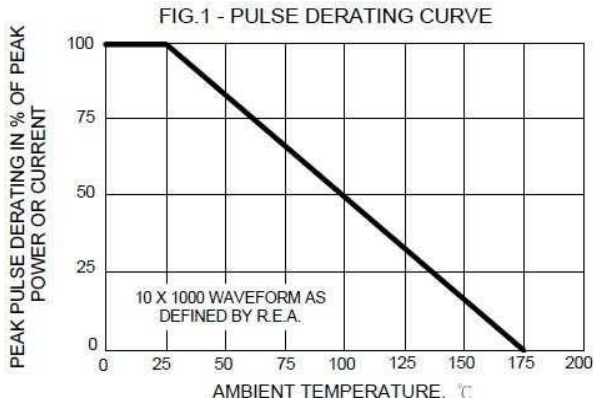
2. Only for unidirectional units.

3. V_F max=3V at I_F=16 A 300us square wave pulse.

REV. 0, Aug-2017, KSIA03

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RATING AND CHARACTERISTIC CURVES APSMAJ SERIES



Device Uni- Directional	Device Bi- Directional	Device Marking Code		Reverse Standoff Voltage VR (V)	Breakdown Voltage VBR Volts			Max. Clamping Voltage @ Ipp VC (V)	Max. Peak Pulse Current IPP (A)	Max. Reverse Leakage @ VR IR (uA)
		(UNI)	(BI)		Min.	Max.	@ It (mA)			
APSM AJ6.8A	APSM AJ6.8CA	A6V8A	A6V8C	5.8	6.45	7.13	10	10.5	38.1	1000
APSM AJ7.5A	APSM AJ7.5CA	A7V5A	A7V5C	6.4	7.13	7.88	10	11.3	35.4	500
APSM AJ8.2A	APSM AJ8.2CA	A8V2A	A8V2C	7.0	7.79	8.61	10	12.1	33.1	200
APSM AJ9.1A	APSM AJ9.1CA	A9V1A	A9V1C	7.8	8.65	9.56	1.0	13.4	29.9	50
APSM AJ10A	APSM AJ10CA	A10A	A10C	8.6	9.50	10.5	1.0	14.5	27.6	10
APSM AJ11A	APSM AJ11CA	A11A	A11C	9.4	10.5	11.6	1.0	15.6	25.6	5
APSM AJ12A	APSM AJ12CA	A12A	A12C	10.2	11.4	12.6	1.0	16.7	24.0	0.5
APSM AJ13A	APSM AJ13CA	A13A	A13C	11.1	12.4	13.7	1.0	18.2	22.0	0.5
APSM AJ15A	APSM AJ15CA	A15A	A15C	12.8	14.3	15.8	1.0	21.2	18.9	0.5
APSM AJ16A	APSM AJ16CA	A16A	A16C	13.6	15.2	16.8	1.0	22.5	17.8	0.5
APSM AJ18A	APSM AJ18CA	A18A	A18C	15.3	17.1	18.9	1.0	25.2	15.9	0.5
APSM AJ20A	APSM AJ20CA	A20A	A20C	17.1	19.0	21.0	1.0	27.7	14.4	0.5
APSM AJ22A	APSM AJ22CA	A22A	A22C	18.8	20.9	23.1	1.0	30.6	13.1	0.5
APSM AJ24A	APSM AJ24CA	A24A	A24C	20.5	22.8	25.2	1.0	33.2	12.0	0.5
APSM AJ27A	APSM AJ27CA	A27A	A27C	23.1	25.7	28.4	1.0	37.5	10.7	0.5
APSM AJ30A	APSM AJ30CA	A30A	A30C	25.6	28.5	31.5	1.0	41.4	9.7	0.5
APSM AJ33A	APSM AJ33CA	A33A	A33C	28.2	31.4	34.7	1.0	45.7	8.8	0.5
APSM AJ36A	APSM AJ36CA	A36A	A36C	30.8	34.2	37.8	1.0	49.9	8.0	0.5
APSM AJ39A	APSM AJ39CA	A39A	A39C	33.3	37.1	41.0	1.0	53.9	7.4	0.5
APSM AJ43A	APSM AJ43CA	A43A	A43C	36.8	40.9	45.2	1.0	59.3	6.7	0.5
APSM AJ47A	APSM AJ47CA	A47A	A47C	40.2	44.7	49.4	1.0	64.8	6.2	0.5
APSM AJ51A	APSM AJ51CA	A51A	A51C	43.6	48.5	53.6	1.0	70.1	5.7	0.5
APSM AJ56A	APSM AJ56CA	A56A	A56C	47.8	53.2	58.8	1.0	77.0	5.2	0.5
APSM AJ62A	APSM AJ62CA	A62A	A62C	53.0	58.9	65.1	1.0	85.0	4.7	0.5
APSM AJ68A	APSM AJ68CA	A68A	A68C	58.1	64.6	71.4	1.0	92.0	4.3	0.5
APSM AJ75A	APSM AJ75CA	A75A	A75C	64.7	71.3	78.8	1.0	103.0	3.9	0.5
APSM AJ82A	APSM AJ82CA	A82A	A82C	70.1	77.9	86.1	1.0	113.0	3.5	0.5
APSM AJ91A	APSM AJ91CA	A91A	A91C	77.8	86.5	95.6	1.0	125.0	3.2	0.5
APSM AJ100A	APSM AJ100CA	A100A	A100C	85.5	95.0	105.0	1.0	137.0	2.9	0.5
APSM AJ110A	APSM AJ110CA	A110A	A110C	94.0	105.0	116.1	1.0	152.0	2.6	0.5
APSM AJ120A	APSM AJ120CA	A120A	A120C	102.0	114.0	126.0	1.0	165.0	2.4	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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