

Surface mount transient voltage suppressor power 400 watts

Stand-Off Voltage : 5.0V~440V

FEATURES

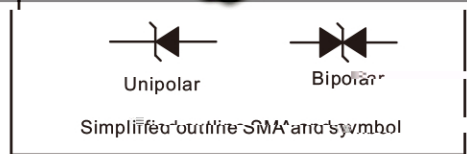
- For surface mounted applications in order to optimize board space.
- Low profile package
- Glass passivated junction
- Low inductance
- Plastic package has Underwriters Laboratory Flammability

MECHANICAL DATA

- Case: SMA
- Terminals: Solderable per MIL-STD-750 Method 2026
- Approx. Weight: 0.055g / 0.002oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (Note 1, Fig 4)	P_{PPM}	400	W
Peak Forward Surge Current (Note 3, Fig 4)	I_{FSM} (UNI)	60	A
Peak Pulse Current on 10/1000 us waveform (Note 1, Fig 3)	I_{PPM}	1000	A
ESD Voltage per IEC6100-4-2 Contact Air	V_{ESD1} V_{ESD2}	± 30 ± 30	kV
Typical Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	30	°C/W
Operating Junction Temperature and Storage Temperature Range	T_j, T_{STG}	-65 to +150	°C

NOTES:

1. Non-repetitive current pulse per Fig 3 and derated above $T_j = 25^\circ C$ per Fig 2.
2. Mounted on 5mm² copper pads to each terminal.
3. Peak Forward Surge Current : 60A single half sine wave superimposed on rated value (5LEO7 remod).
4. Peak pulse power waveform is 10/1000us.

Characteristics of the SMAJ Series

Type	Part Number	Max. Peak Inverse Voltage (V _{RM})	Max. Peak Forward Voltage (V _{FM})	Max. Peak Repetitive Reverse Voltage (V _{RRM})	Max. Peak Repetitive Forward Voltage (V _{FRM})	Max. Peak Reverse Current (I _{RM})	Max. Peak Forward Current (I _{FM})	Max. Peak Repetitive Reverse Current (I _{RRM})	Max. Peak Repetitive Forward Current (I _{FRM})	Max. Peak Surge Current (I _{SM})	Max. Peak Surge Power (P _{SM})	Max. Peak Surge Energy (E _{SM})	Max. Peak Surge Power (P _{SM})	Max. Peak Surge Energy (E _{SM})
SMAJ5.0A	SMAJ5.0CA	5.0	5.0	5.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
SMAJ7.5A	SMAJ7.5CA	7.5	7.5	7.5	7.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
SMAJ10A	SMAJ10CA	10	10	10	10	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
SMAJ15A	SMAJ15CA	15	15	15	15	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
SMAJ20A	SMAJ20CA	20	20	20	20	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
SMAJ24A	SMAJ24CA	24	24	24	24	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
SMAJ30A	SMAJ30CA	30	30	30	30	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
SMAJ36A	SMAJ36CA	36	36	36	36	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	
SMAJ40A	SMAJ40CA	40	40	40	40	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
SMAJ48A	SMAJ48CA	48	48	48	48	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	
SMAJ54A	SMAJ54CA	54	54	54	54	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	
SMAJ60A	SMAJ60CA	60	60	60	60	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
SMAJ66A	SMAJ66CA	66	66	66	66	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	
SMAJ72A	SMAJ72CA	72	72	72	72	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	
SMAJ78A	SMAJ78CA	78	78	78	78	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	
SMAJ84A	SMAJ84CA	84	84	84	84	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	
SMAJ90A	SMAJ90CA	90	90	90	90	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	
SMAJ96A	SMAJ96CA	96	96	96	96	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	
SMAJ100A	SMAJ100CA	100	100	100	100	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
SMAJ105A	SMAJ105CA	105	105	105	105	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	
SMAJ110A	SMAJ110CA	110	110	110	110	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	
SMAJ115A	SMAJ115CA	115	115	115	115	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	
SMAJ120A	SMAJ120CA	120	120	120	120	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	
SMAJ125A	SMAJ125CA	125	125	125	125	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	
SMAJ130A	SMAJ130CA	130	130	130	130	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	
SMAJ135A	SMAJ135CA	135	135	135	135	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	
SMAJ140A	SMAJ140CA	140	140	140	140	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	
SMAJ145A	SMAJ145CA	145	145	145	145	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	
SMAJ150A	SMAJ150CA	150	150	150	150	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	
SMAJ155A	SMAJ155CA	155	155	155	155	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	
SMAJ160A	SMAJ160CA	160	160	160	160	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	
SMAJ165A	SMAJ165CA	165	165	165	165	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	
SMAJ170A	SMAJ170CA	170	170	170	170	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	
SMAJ175A	SMAJ175CA	175	175	175	175	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	
SMAJ180A	SMAJ180CA	180	180	180	180	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	
SMAJ185A	SMAJ185CA	185	185	185	185	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	
SMAJ190A	SMAJ190CA	190	190	190	190	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	
SMAJ195A	SMAJ195CA	195	195	195	195	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	
SMAJ200A	SMAJ200CA	200	200	200	200	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	

Fig.1 Peak Pulse Power Rating Curve

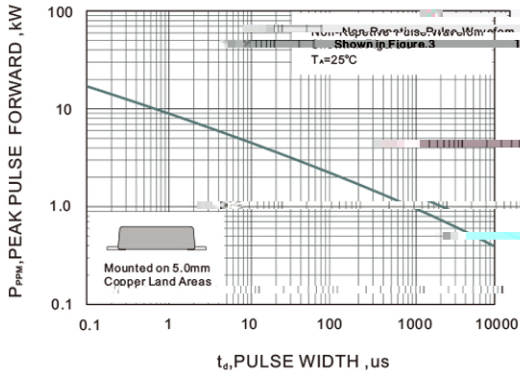


Fig.2 Forward Current Derating Curve

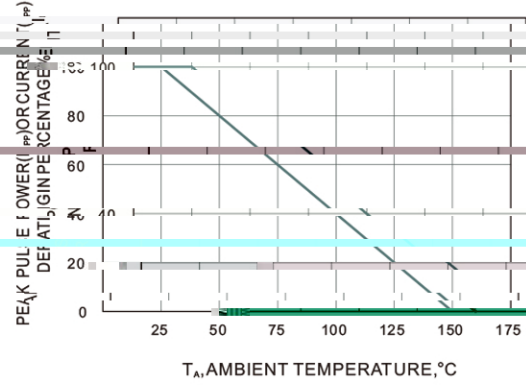


Fig.3 Pulse Waveform

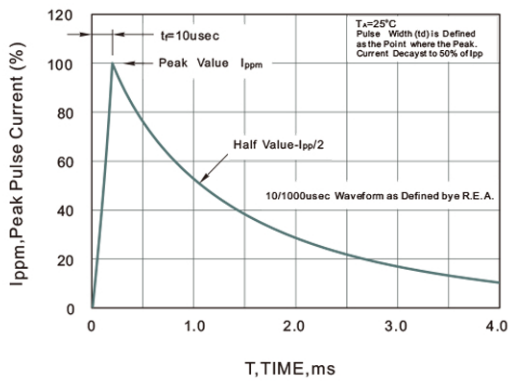
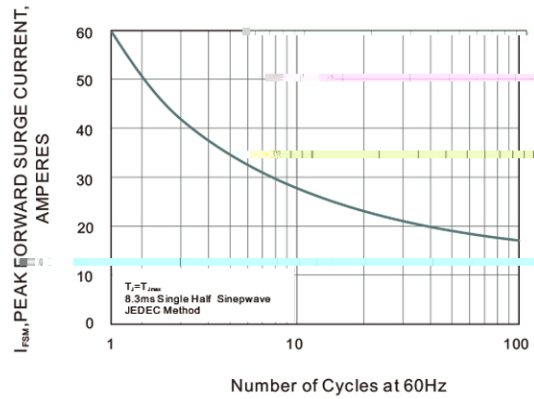
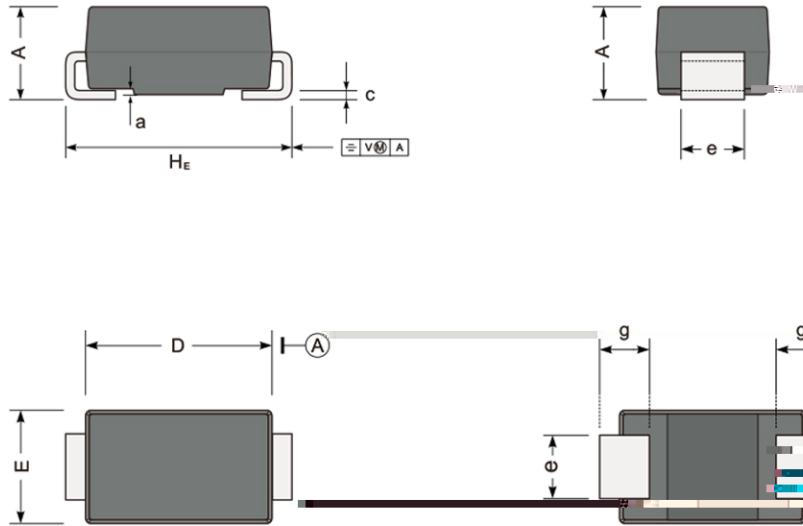


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

Plastic surface mounted package, 2 leads



UNIT		A	D	E	H _E	c	e	g	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	
mil	max	87	181	106	209	12	63	59	12
	min	75	157	91	185	6	51	35	

The recommended mounting pad size is:

