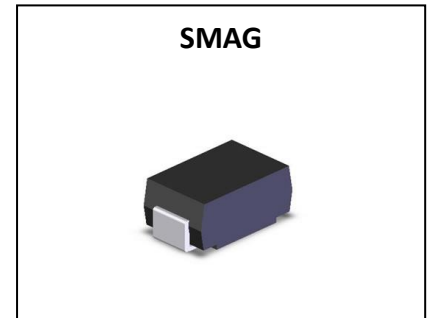


### Feature

- Glass passivated chip
- 400W peak pulse power capability with a 10/1000us waveform
- Repetitive rate (duty cycle): 0.01%
- Excellent clamping capability
- Low reverse leakage
- Very fast response time
- Lead and body according with Rohs standard
- Complies with following standards:
  - IEC 61000-4-2(ESD) immunity test level 4
    - Air discharge :  $\pm 15\text{kV}$
    - Contact discharge:  $\pm 8\text{kV}$



### Mechanical Data

- Case: SMA/DO214AC Molded plastic
- Lead: Solderable per MIL-STD-750, method 2026
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any

### Marking

- SMAJ  
XXCA/XXA  
XX: From 5.0 To 550

### Absolute Maximum Ratings ( $T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak power dissipation with a 10/1000 us waveform	$P_{PP}$	400	W
Peak pulse current with a 10/1000 us waveform	$I_{PP}$	See Next Table	A
Power dissipation on infinite heatsink at $T_L = 75^\circ\text{C}$	$P_D$	3.0	W
Peak forward surge current, 8.3 ms single half sinewave unidirectional only <sup>1)</sup>	$I_{FSM}$	40	A
Maximum instantaneous forward voltage at 25A for unidirectional only <sup>2)</sup>	$V_F$	3.5/6.5	V
Junction Temperature	$T_J$	-55 ~ +150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +150	$^\circ\text{C}$

- 1) Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum;
- 2)  $V_F < 3.5\text{V}$  for devices of  $V_{BR} < 200\text{V}$  and  $V_F < 6.5\text{V}$  for devices of  $V_{BR} > 201\text{V}$ .

## Electrical Characteristics (T<sub>a</sub>=25°C unless otherwise specified)

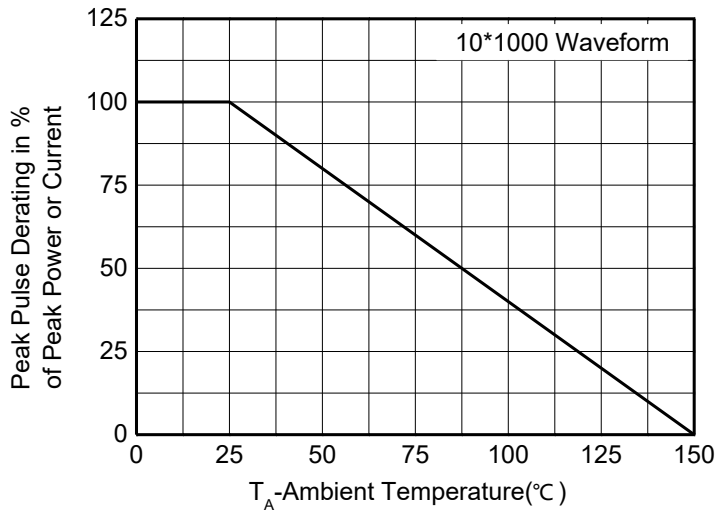
Part Number	Part Number	Reverse Stand-off Voltage VR (V)	Breakdown Voltage VBR (Volts) @ IT		Test Current IT (mA)	Maximum Clamping Voltage VC @ IPP (Volts)	Maximum Peak Pulse Current IPP (A)	Maximum Reverse Leakage IR @ VR (μA)
			MIN	MAX				
UNI	BI							
SMAJ5.0A	SMAJ5.0CA	5	6.4	7	10	9.2	43.5	800
SMAJ6.0A	SMAJ6.0CA	6	6.67	7.37	10	10.3	38.8	800
SMAJ6.5A	SMAJ6.5CA	6.5	7.22	7.98	10	11.2	35.7	500
SMAJ7.0A	SMAJ7.0CA	7	7.78	8.6	10	12	33.3	200
SMAJ7.5A	SMAJ7.5CA	7.5	8.33	9.21	1	12.9	31	100
SMAJ8.0A	SMAJ8.0CA	8	8.89	9.83	1	13.6	29.4	50
SMAJ8.5A	SMAJ8.5CA	8.5	9.44	10.4	1	14.4	27.8	20
SMAJ9.0A	SMAJ9.0CA	9	10	11.1	1	15.4	26	10
SMAJ10A	SMAJ10CA	10	11.1	12.3	1	17	23.5	5
SMAJ11A	SMAJ11CA	11	12.2	13.5	1	18.2	22	1
SMAJ12A	SMAJ12CA	12	13.3	14.7	1	19.9	20.1	1
SMAJ13A	SMAJ13CA	13	14.4	15.9	1	21.5	18.6	1
SMAJ14A	SMAJ14CA	14	15.6	17.2	1	23.2	17.2	1
SMAJ15A	SMAJ15CA	15	16.7	18.5	1	24.4	16.4	1
SMAJ16A	SMAJ16CA	16	17.8	19.7	1	26	15.4	1
SMAJ17A	SMAJ17CA	17	18.9	20.9	1	27.6	14.5	1
SMAJ18A	SMAJ18CA	18	20	22.1	1	29.2	13.7	1
SMAJ20A	SMAJ20CA	20	22.2	24.5	1	32.4	12.3	1
SMAJ22A	SMAJ22CA	22	24.4	26.9	1	35.5	11.3	1
SMAJ24A	SMAJ24CA	24	26.7	29.5	1	38.9	10.3	1
SMAJ26A	SMAJ26CA	26	28.9	31.9	1	42.1	9.5	1
SMAJ28A	SMAJ28CA	28	31.1	34.4	1	45.4	8.8	1
SMAJ30A	SMAJ30CA	30	33.3	36.8	1	48.4	8.3	1
SMAJ33A	SMAJ33CA	33	36.7	40.6	1	53.3	7	1
SMAJ36A	SMAJ36CA	36	40	44.2	1	58.1	6.9	1
SMAJ40A	SMAJ40CA	39	44.4	49.1	1	64.5	6.2	1
SMAJ43A	SMAJ43CA	42	47.8	52.8	1	69.4	5.8	1
SMAJ45A	SMAJ45CA	45	50	55.3	1	72.7	5.5	1
SMAJ48A	SMAJ48CA	48	53.3	58.9	1	77.4	5.2	1
SMAJ51A	SMAJ51CA	51	56.7	62.7	1	82.4	4.9	1
SMAJ54A	SMAJ54CA	54	60	66.3	1	87.1	4.6	1
SMAJ58A	SMAJ58CA	58	64.4	71.2	1	93.6	4.3	1
SMAJ60A	SMAJ60CA	62	66.7	73.7	1	96.8	4.1	1
SMAJ64A	SMAJ64CA	66	71.1	78.6	1	103	3.9	1
SMAJ70A	SMAJ70CA	70	77.8	86	1	113	3.5	1
SMAJ75A	SMAJ75CA	75	83.3	92.1	1	121	3.3	1
SMAJ78A	SMAJ78CA	78	86.7	95.8	1	126	3.2	1
SMAJ85A	SMAJ85CA	85	94.4	104	1	137	2.9	1

## Electrical Characteristics (T<sub>a</sub>=25°C unless otherwise specified)

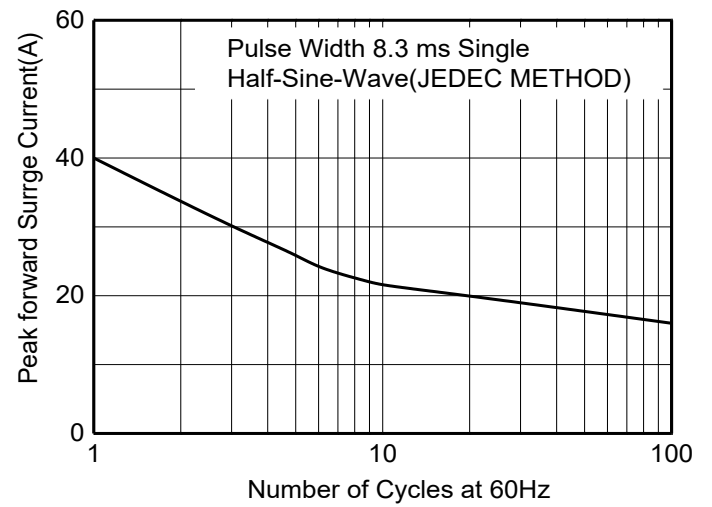
Part Number	Part Number	Reverse Stand-off Voltage VR (V)	Breakdown Voltage VBR (Volts) @ IT		Test Current IT (mA)	Maximum Clamping Voltage VC @ IPP (Volts)	Maximum Peak Pulse Current IPP (A)	Maximum Reverse Leakage IR @ VR (μA)
			MIN	MAX				
SMAJ90A	SMAJ90CA	90	100	111	1	146	2.7	1
SMAJ100A	SMAJ100CA	100	111	123	1	162	2.5	1
SMAJ110A	SMAJ110CA	110	122	135	1	177	2.3	1
SMAJ120A	SMAJ120CA	120	133	147	1	193	2.1	1
SMAJ130A	SMAJ130CA	130	144	159	1	209	1.9	1
SMAJ150A	SMAJ150CA	150	167	185	1	243	1.6	1
SMAJ160A	SMAJ160CA	160	178	197	1	259	1.5	1
SMAJ170A	SMAJ170CA	170	189	209	1	275	1.5	1
SMAJ180A	SMAJ180CA	180	201	222	1	292	1.4	1
SMAJ190A	SMAJ190CA	190	211	233	1	306	1.3	1
SMAJ200A	SMAJ200CA	200	224	247	1	324	1.2	1
SMAJ210A	SMAJ210CA	210	233	258	1	324	1.1	1
SMAJ220A	SMAJ220CA	220	246	272	1	356	1.1	1
SMAJ250A	SMAJ250CA	250	279	309	1	405	1	1
SMAJ300A	SMAJ300CA	300	335	371	1	486	0.8	1
SMAJ350A	SMAJ350CA	350	391	432	1	567	0.7	1
SMAJ400A	SMAJ400CA	400	447	494	1	648	0.6	1
SMAJ440A	SMAJ440CA	440	492	543	1	713	0.6	1
SMAJ480A	SMAJ480CA	480	536	593	1	750	0.5	1
SMAJ520A	SMAJ520CA	520	578	640	1	762	0.5	1
SMAJ550A	SMAJ550CA	550	615	680	1	860	0.4	1

## Typical Characteristics

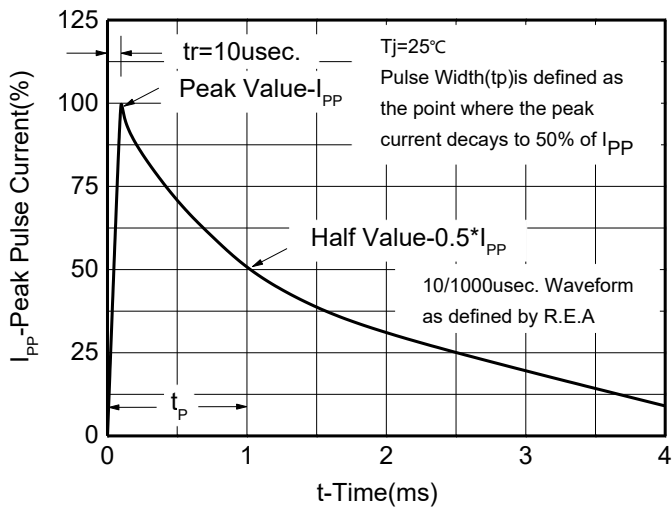
### Pulse Derating Curve



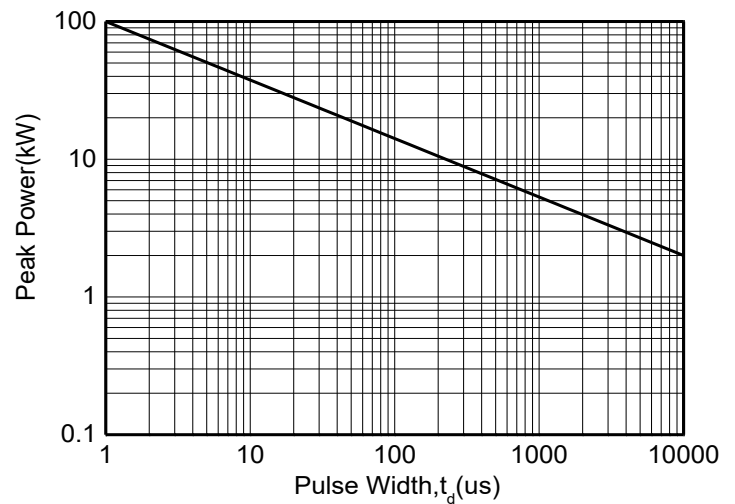
### Maximum Non-Repetitive Surge Current



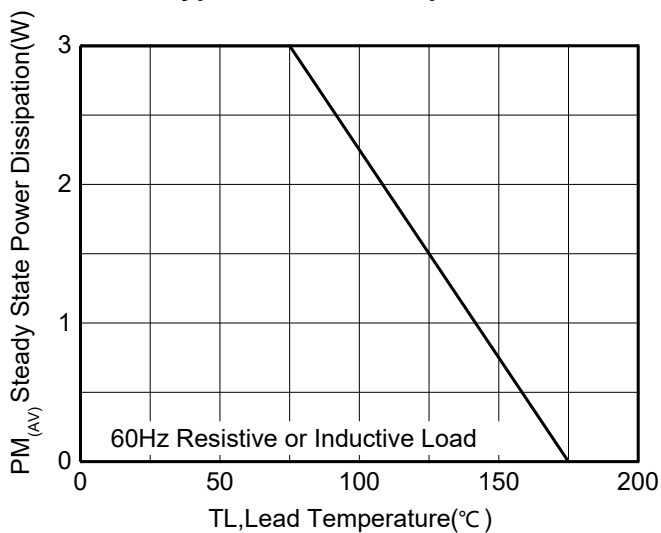
### Pulse Waveform



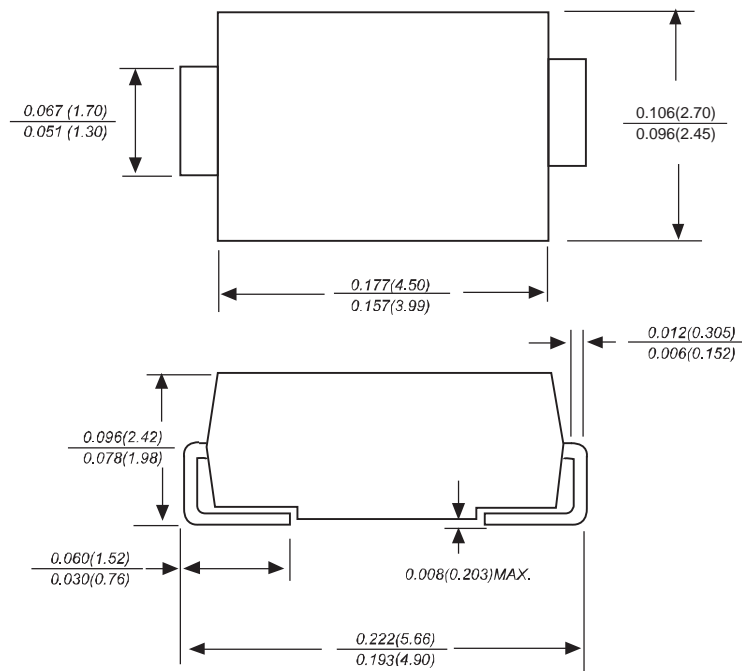
### Peak Pulse Power Rating



### Typical Junction Capacitance

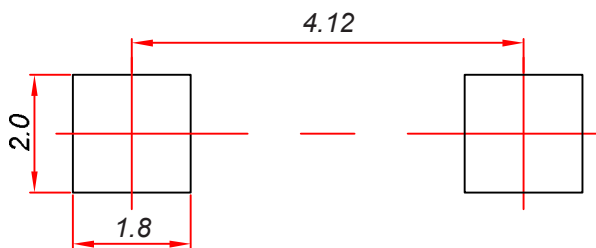


**SMA Package Outline Dimensions**



Dimensions in inches and (millimeters)

**SMAG Suggested Pad Layout**



**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05mm$ .
3. The pad layout is for reference purposes only.

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)