

**Description**

Surface mount transient voltage suppressor, 1500W peak pulse power capability at 10/1000µs waveform, Reverse Stand-Off Voltage: 5.0V~440V, SMC package.

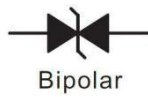
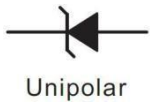
**Features**

Glass passivated junction, Low inductance, For surface mounted applications, HF product.

**Applications**

General purpose

**Equivalent Circuit**

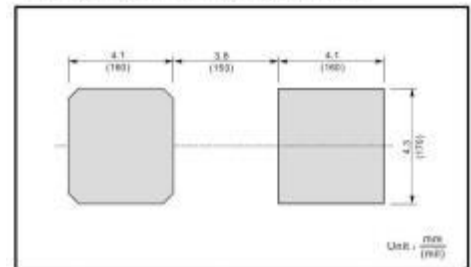


**Pinning**



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



**Marking**

See Marking Instructions.

**Absolute Maximum Ratings(Ta=25°C)**

Parameter	Symbol	Rating	Unit
Peak Pulse Power Dissipation on 10/1000 us waveform	PPPM	1500	W
Peak Forward Surge Current,8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM (UNI)	200	A
Power dissipation on Infinite heat sink at TA=50 °C	PD	6.5	W
Maximum instantaneous forward voltage at 100 A for unidirectional only	VF	3.5	V
Typical Thermal Resistance Junction to Ambient(Note 1)	RθJA RθJL	75 15	°C/W
Operating Junction and Storage Temperature Range	Tj, Tstg	-55 ~ +150	°C

**Note:**

 1. Mounted on 8 mm<sup>2</sup> (0.13mm thick) land areas.

**Electrical Characteristics(Ta=25°C)**

Type		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Maximum Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Package	
			V <sub>BR</sub> @ I <sub>T</sub>						SMC	
		V <sub>RRM</sub>	Min	Max	I <sub>T</sub>	I <sub>R</sub> @ V <sub>RRM</sub>	V <sub>C</sub> @ I <sub>PP</sub>	I <sub>PP</sub>	Device Marking Code	
UNI	BI	V	V	V	mA	uA	V	A	UNI	BI
SMCJ5.0A	SMCJ5.0CA	5	6.4	7	10	800	9.2	163	GDE	BDE
SMCJ6.0A	SMCJ6.0CA	6	6.67	7.37	10	800	10.3	145.7	GDG	BDG
SMCJ6.5A	SMCJ6.5CA	6.5	7.22	7.98	10	500	11.2	134	GDK	BDK
SMCJ7.0A	SMCJ7.0CA	7	7.78	8.6	10	200	12.0	125	GDM	BDM
SMCJ7.5A	SMCJ7.5CA	7.5	8.33	9.21	1	100	12.9	116.3	GDP	BDP
SMCJ8.0A	SMCJ8.0CA	8	8.89	9.83	1	50	13.6	110.3	GDR	BDR
SMCJ8.5A	SMCJ8.5CA	8.5	9.44	10.4	1	20	14.4	104.2	GDT	BDT
SMCJ9.0A	SMCJ9.0CA	9	10	11.1	1	10	15.4	97.4	GDV	BDV
SMCJ10A	SMCJ10CA	10	11.1	12.3	1	5	17.0	88.3	GDX	BDX
SMCJ11A	SMCJ11CA	11	12.2	13.5	1	1	18.2	82.5	GDZ	BDZ
SMCJ12A	SMCJ12CA	12	13.3	14.7	1	1	19.9	75.4	GEE	BEE
SMCJ13A	SMCJ13CA	13	14.4	15.9	1	1	21.5	69.8	GEG	BEG
SMCJ14A	SMCJ14CA	14	15.6	17.2	1	1	23.2	64.7	GEK	BEK
SMCJ15A	SMCJ15CA	15	16.7	18.5	1	1	24.4	61.5	GEM	BEM
SMCJ16A	SMCJ16CA	16	17.8	19.7	1	1	26.0	57.7	GEP	BEP
SMCJ17A	SMCJ17CA	17	18.9	20.9	1	1	27.6	54.4	GER	BER
SMCJ18A	SMCJ18CA	18	20	22.1	1	1	29.2	51.4	GET	BET
SMCJ20A	SMCJ20CA	20	22.2	24.5	1	1	32.4	46.3	GEV	BEV
SMCJ22A	SMCJ22CA	22	24.4	26.9	1	1	35.5	42.3	GEX	BEX
SMCJ24A	SMCJ24CA	24	26.7	29.5	1	1	38.9	38.6	GEZ	BEZ
SMCJ26A	SMCJ26CA	26	28.9	31.9	1	1	42.1	35.7	GFE	BFE
SMCJ28A	SMCJ28CA	28	31.1	34.4	1	1	45.4	33.1	GFG	BFG
SMCJ30A	SMCJ30CA	30	33.3	36.8	1	1	48.4	31	GFK	BFK
SMCJ33A	SMCJ33CA	33	36.7	40.6	1	1	53.3	28.2	GFM	BFM
SMCJ36A	SMCJ36CA	36	40	44.2	1	1	58.1	25.9	GFP	BFP
SMCJ40A	SMCJ40CA	40	44.4	49.1	1	1	64.5	23.3	GFR	BFR
SMCJ43A	SMCJ43CA	43	47.8	52.8	1	1	69.4	21.7	GFT	BFT

**Electrical Characteristics(Ta=25°C)**

Type		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Package	
			V <sub>BR</sub> @ I <sub>T</sub>						SMA	
		V <sub>RRM</sub>	Min	Max	I <sub>T</sub>	I <sub>R</sub> @ V <sub>RRM</sub>	V <sub>C</sub> @ I <sub>PP</sub>	I <sub>PP</sub>	Device Marking Ccode	
UNI	BI	V	V	V	mA	μA	V	A	UNI	BI
SMCJ45A	SMCJ45CA	45	50	55.3	1	1	72.7	20.6	GFV	BFV
SMCJ48A	SMCJ48CA	48	53.3	58.9	1	1	77.4	19.4	GFX	BFX
SMCJ51A	SMCJ51CA	51	56.7	62.7	1	1	82.4	18.2	GFZ	BFZ
SMCJ54A	SMCJ54CA	54	60	66.3	1	1	87.1	17.3	GGE	BGE
SMCJ58A	SMCJ58CA	58	64.4	71.2	1	1	93.6	16.1	GGG	BGG
SMCJ60A	SMCJ60CA	60	66.7	73.7	1	1	96.8	15.5	GGK	BGK
SMCJ64A	SMCJ64CA	64	71.1	78.6	1	1	103.0	14.6	GGM	BGM
SMCJ70A	SMCJ70CA	70	77.8	86	1	1	113.0	13.3	GGP	BGP
SMCJ75A	SMCJ75CA	75	83.3	92.1	1	1	121.0	12.4	GGR	BGR
SMCJ78A	SMCJ78CA	78	86.7	95.8	1	1	126.0	11.9	GGT	BGT
SMCJ85A	SMCJ85CA	85	94.4	104	1	1	137.0	11	GGV	BGV
SMCJ90A	SMCJ90CA	90	100	111	1	1	146.0	10.3	GGX	BGX
SMCJ100A	SMCJ100CA	100	111	123	1	1	162.0	9.3	GGZ	BGZ
SMCJ110A	SMCJ110CA	110	122	135	1	1	177.0	8.5	GHE	BHE
SMCJ120A	SMCJ120CA	120	133	147	1	1	193.0	7.8	GHG	BHG
SMCJ130A	SMCJ130CA	130	144	159	1	1	209.0	7.2	GHK	BHK
SMCJ150A	SMCJ150CA	150	167	185	1	1	243.0	6.2	GHM	BHM
SMCJ160A	SMCJ160CA	160	178	197	1	1	259.0	5.8	GHP	BHP
SMCJ170A	SMCJ170CA	170	189	209	1	1	275.0	5.5	GHR	BHR
SMCJ180A	SMCJ180CA	180	201	222	1	1	292.0	5.1	GHT	BHT
SMCJ200A	SMCJ200CA	200	224	247	1	1	324.0	4.6	GHV	BHV
SMCJ220A	SMCJ220CA	220	246	272	1	1	356.0	4.2	GHX	BHX
SMCJ250A	SMCJ250CA	250	279	309	1	1	405.0	3.7	GHZ	BHZ
SMCJ300A	SMCJ300CA	300	335	371	1	1	486.0	3.1	GJE	BJE
SMCJ350A	SMCJ300CA	350	391	432	1	1	567.0	2.6	GJG	BJG
SMCJ400A	SMCJ350CA	400	447	494	1	1	648.0	2.3	GJK	BJK
SMCJ440A	SMCJ400CA	440	492	543	1	1	713.0	2.1	GJM	BJM

Electrical Characteristic Curve

Fig.1 Peak Pulse Power Rating Curve

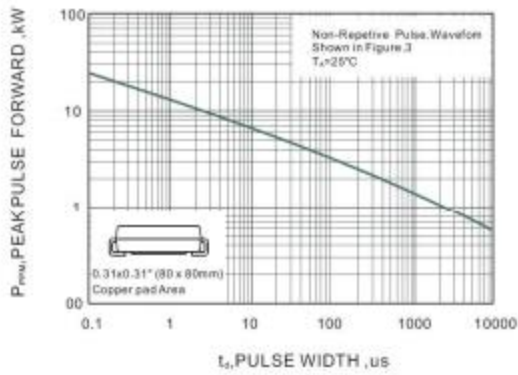


Fig.2 Pulse Waveform

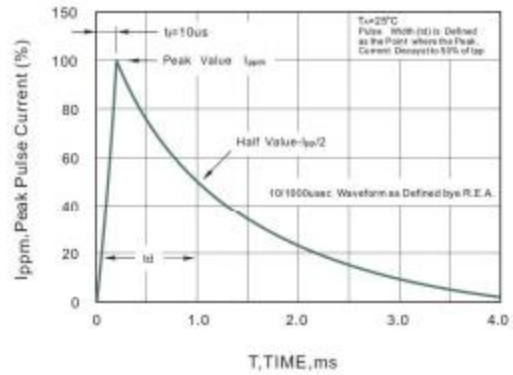


Fig.3 Forward Current Derating Curve

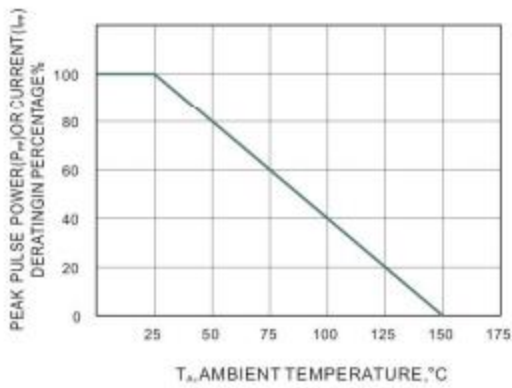


Fig.4 Typical Junction Capacitance

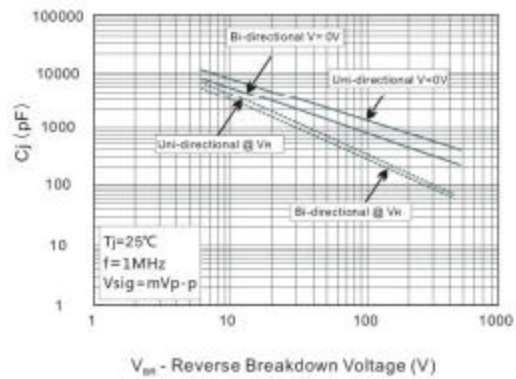
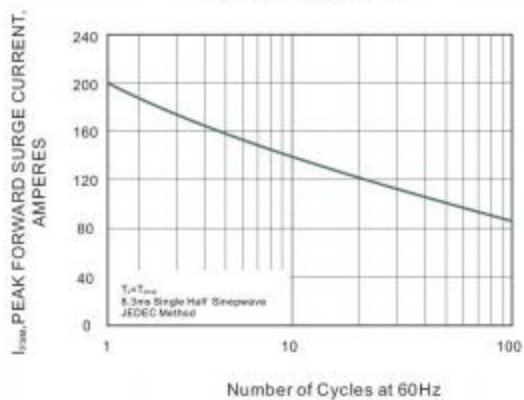


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Marking Instructions



Note:

GDE : Product Type Code

\*\*\*\*\* : Lot No. Code , The 1st \* means:YM Code , The last 3 \* means:little Lot No Code



Note:

BDE : Product Type Code

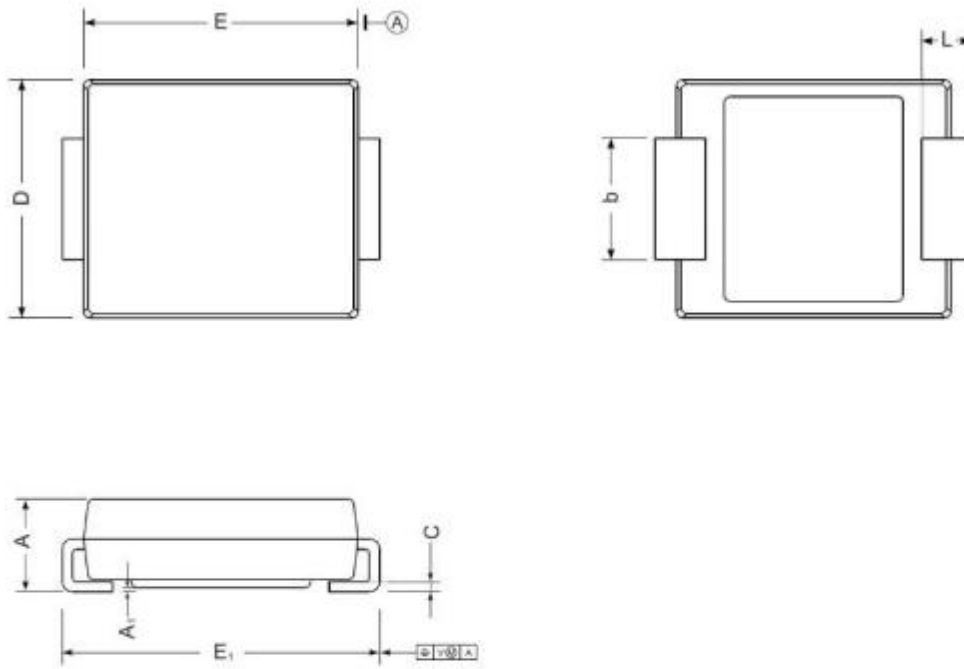
\*\*\*\*\* : Lot No. Code ,The 1st \* means:YM Code ,The last 3 \* means:little Lot No Co

Packaging SPEC.

Package Type	Units					Dimension (unit: mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SMC	3000	2	6000	6	36000	13" ×16	337X337X49	380X335X366

Package Dimensions

SMC



SMC mechanical data

UNIT		A	E	D	E <sub>1</sub>	A <sub>1</sub>	C	L	b
mm	max	2.62	7.0	6.2	8.0	0.21	0.31	1.6	3.25
	min	2.00	6.5	5.6	7.6	0.05	0.15	0.9	2.75
mil	max	103	276	244	315	8.3	12	63	128
	min	79	256	220	299	2.0	5.9	35	108