

Descriptions

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

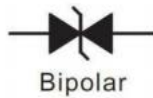
Features

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

Applications

General purpose

Equivalent Circuit

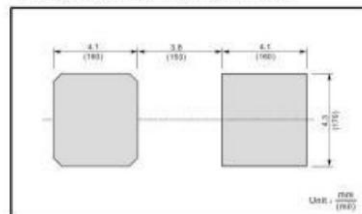


Pinning



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 mm² (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 _{BR} @ I _T						SMC	
		V _{R_{RRM}}	Min	Max	I _T	I _R @ V _{RRM}	V _C @ I _{PP}	I _{PP}	Device Marking Ccode	
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 Characteristic Curve

Type		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Package	
			V _{BR} @ I _T						SMA	
		V _{RRM}	Min	Max	I _T	I _R @ V _{RRM}	V _C @ I _{PP}	I _{PP}	Device Marking Ccode	UNI
UNI	BI	V	V	V	mA	uA	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

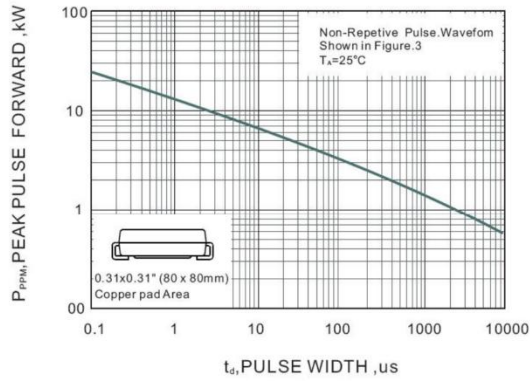


Fig.2 Pulse Waveform

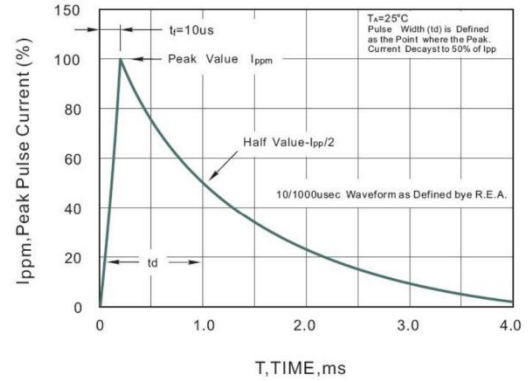


Fig.3 Forward Current Derating Curve

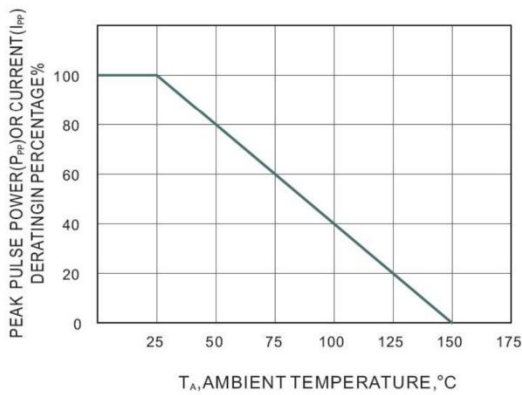


Fig.4 Typical Junction Capacitance

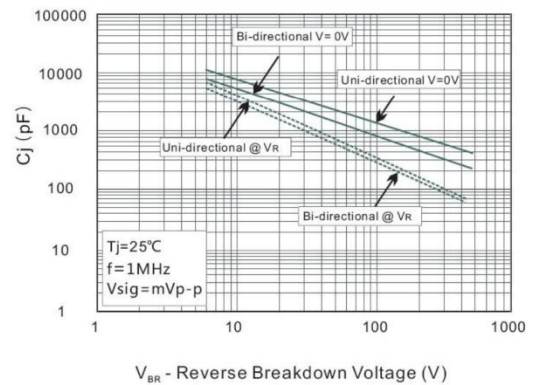
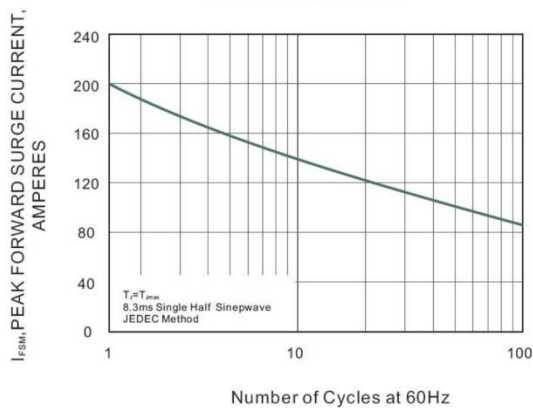


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



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

REEL

Package Type	Units					Dimension (unit: mm ³)		
	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 Outline Dimensions

SMC

