

The SMCJ series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

FEATURES

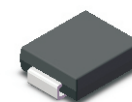
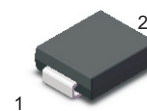
- 1500W peak pulse power capability at 10/1000 μ s waveform
- For surface mounted applications to optimize board space
- Glass passivated chip junction
- Halogen free and RoHS compliant

MECHANICAL DATA

- Case: SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.22g (0.0077oz)

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Simplified outline SMC and symbol

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000 us waveform	P_{PPM}	1500	W
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM} (UNI)	200	A
Power dissipation on Infinite heat sink at $T_A=50^{\circ}C$	P_D	6.5	W
Maximum instantaneous forward voltage at 100 A for unidirectional only	V_F	3.5	V
Peak Pulse Current on 10/1000 us waveform	I_{PPM}	See Next Table	A
Typical Thermal Resistance Junction to Ambient(Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	75 15	$^{\circ}C/W$
Operating Junction Temperature and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^{\circ}C$

NOTES:

1. Mounted on 8 mm² (0.13mm thick) land areas.

Characteristics at Ta = 25°C

Type		Marking		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max Clamping Voltage	Peak Pulse Current	Maximum Reverse Leakage
				V _{RMW}	V _{BR} @ I _T		I _T	V _C @ I _{PP}	I _{PP}	I _R
UNI	BI	UNI	BI	V	Min(V)	Max(V)	mA	V	A	μA
KSMCJ5.0A	KSMCJ5.0CA	GDE	BDE	5	6.4	7	10	9.2	163	800
KSMCJ6.0A	KSMCJ6.0CA	GDG	BDG	6	6.67	7.37	10	10.3	145.7	800
KSMCJ6.5A	KSMCJ6.5CA	GDK	BDK	6.5	7.22	7.98	10	11.2	134	500
KSMCJ7.0A	KSMCJ7.0CA	GDM	BDM	7	7.78	8.6	10	12	125	200
KSMCJ7.5A	KSMCJ7.5CA	GDP	BDP	7.5	8.33	9.21	1	12.9	116.3	100
KSMCJ8.0A	KSMCJ8.0CA	GDR	BDR	8	8.89	9.83	1	13.6	110.3	50
KSMCJ8.5A	KSMCJ8.5CA	GDT	BDT	8.5	9.44	10.4	1	14.4	104.2	20
KSMCJ9.0A	KSMCJ9.0CA	GDV	BDV	9	10	11.1	1	15.4	97.4	10
KSMCJ10A	KSMCJ10CA	GDX	BDX	10	11.1	12.3	1	17	88.3	5
KSMCJ11A	KSMCJ11CA	GDZ	BDZ	11	12.2	13.5	1	18.2	82.5	1
KSMCJ12A	KSMCJ12CA	GEE	BEE	12	13.3	14.7	1	19.9	75.4	1
KSMCJ13A	KSMCJ13CA	GEG	BEG	13	14.4	15.9	1	21.5	69.8	1
KSMCJ14A	KSMCJ14CA	GEK	BEK	14	15.6	17.2	1	23.2	64.7	1
KSMCJ15A	KSMCJ15CA	GEM	BEM	15	16.7	18.5	1	24.4	61.5	1
KSMCJ16A	KSMCJ16CA	GEP	BEP	16	17.8	19.7	1	26	57.7	1
KSMCJ17A	KSMCJ17CA	GER	BER	17	18.9	20.9	1	27.6	54.4	1
KSMCJ18A	KSMCJ18CA	GET	BET	18	20	22.1	1	29.2	51.4	1
KSMCJ20A	KSMCJ20CA	GEV	BEV	20	22.2	24.5	1	32.4	46.3	1
KSMCJ22A	KSMCJ22CA	GEX	BEX	22	24.4	26.9	1	35.5	42.3	1
KSMCJ24A	KSMCJ24CA	GEZ	BEZ	24	26.7	29.5	1	38.9	38.6	1
KSMCJ26A	KSMCJ26CA	GFE	BFE	26	28.9	31.9	1	42.1	35.7	1
KSMCJ28A	KSMCJ28CA	GFG	BFG	28	31.1	34.4	1	45.4	33.1	1
KSMCJ30A	KSMCJ30CA	GFK	BFK	30	33.3	36.8	1	48.4	31	1
KSMCJ33A	KSMCJ33CA	GFM	BFM	33	36.7	40.6	1	53.3	28.2	1
KSMCJ36A	KSMCJ36CA	GFP	BFP	36	40	44.2	1	58.1	25.9	1
KSMCJ40A	KSMCJ40CA	GFR	BFR	40	44.4	49.1	1	64.5	23.3	1
KSMCJ43A	KSMCJ43CA	GFT	BFT	43	47.8	52.8	1	69.4	21.7	1
KSMCJ45A	KSMCJ45CA	GFV	BFV	45	50	55.3	1	72.7	20.6	1
KSMCJ48A	KSMCJ48CA	GFX	BFX	48	53.3	58.9	1	77.4	19.4	1
KSMCJ51A	KSMCJ51CA	GFZ	BFZ	51	56.7	62.7	1	82.4	18.2	1
KSMCJ54A	KSMCJ54CA	GGE	BGE	54	60	66.3	1	87.1	17.3	1
KSMCJ58A	KSMCJ58CA	GGG	BGG	58	64.4	71.2	1	93.6	16.1	1
KSMCJ60A	KSMCJ60CA	GGK	BGK	60	66.7	73.7	1	96.8	15.5	1
KSMCJ64A	KSMCJ64CA	GGM	BGM	64	71.1	78.6	1	103	14.6	1
KSMCJ70A	KSMCJ70CA	GGP	BGP	70	77.8	86	1	113	13.3	1
KSMCJ75A	KSMCJ75CA	GGR	BGR	75	83.3	92.1	1	121	12.4	1
KSMCJ78A	KSMCJ78CA	GGT	BGT	78	86.7	95.8	1	126	11.9	1
KSMCJ85A	KSMCJ85CA	GGV	BGV	85	94.4	104	1	137	11	1
KSMCJ90A	KSMCJ90CA	GGX	BGX	90	100	111	1	146	10.3	1
KSMCJ100A	KSMCJ100CA	GGZ	BGZ	100	111	123	1	162	9.3	1
KSMCJ110A	KSMCJ110CA	GHE	BHE	110	122	135	1	177	8.5	1
KSMCJ120A	KSMCJ120CA	GHG	BHG	120	133	147	1	193	7.8	1
KSMCJ130A	KSMCJ130CA	GHK	BHK	130	144	159	1	209	7.2	1
KSMCJ150A	KSMCJ150CA	GHM	BHM	150	167	185	1	243	6.2	1
KSMCJ160A	KSMCJ160CA	GHP	BHP	160	178	197	1	259	5.8	1
KSMCJ170A	KSMCJ170CA	GHR	BHR	170	189	209	1	275	5.5	1
KSMCJ180A	KSMCJ180CA	GHT	BHT	180	201	222	1	292	5.1	1
KSMCJ200A	KSMCJ200CA	GHV	BHV	200	224	247	1	324	4.6	1
KSMCJ220A	KSMCJ220CA	GHX	BHX	220	246	272	1	356	4.2	1
KSMCJ250A	KSMCJ250CA	GHZ	BHZ	250	279	309	1	405	3.7	1
KSMCJ300A	KSMCJ300CA	GJE	BJE	300	335	371	1	486	3.1	1
KSMCJ350A	KSMCJ350CA	GJG	BJG	350	391	432	1	567	2.6	1
KSMCJ400A	KSMCJ400CA	GJK	BJK	400	447	494	1	648	2.3	1
KSMCJ440A	KSMCJ440CA	GJM	BJM	440	492	543	1	713	2.1	1

Fig.1 Peak Pulse Power Rating Curve

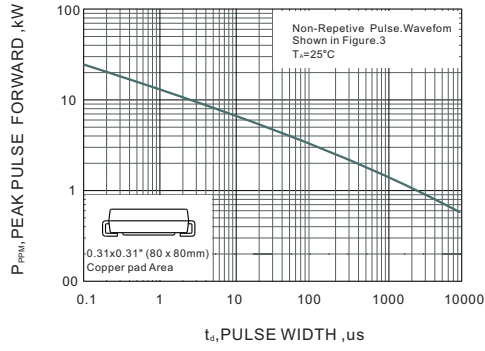


Fig.2 Pulse Waveform

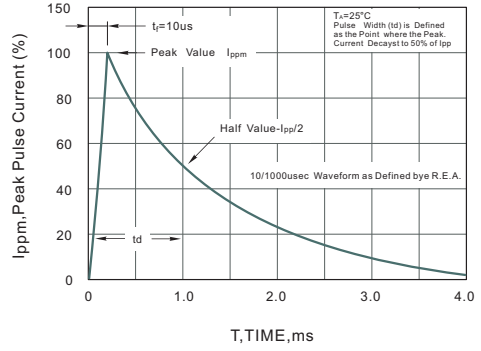


Fig.3 Forward Current Derating Curve

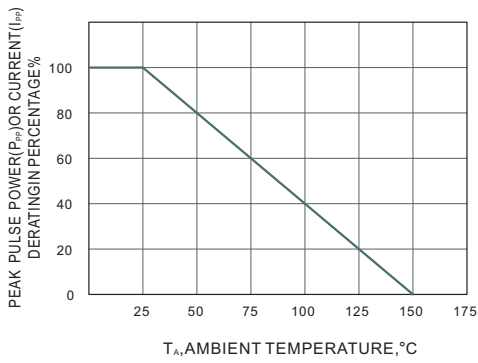


Fig.4 Typical Junction Capacitance

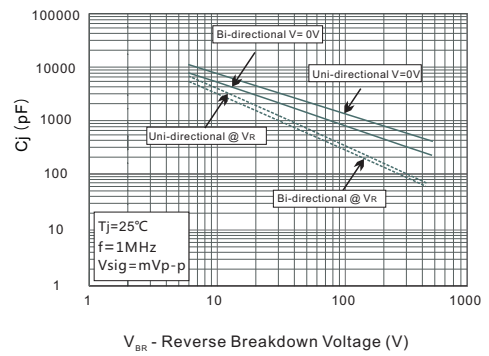
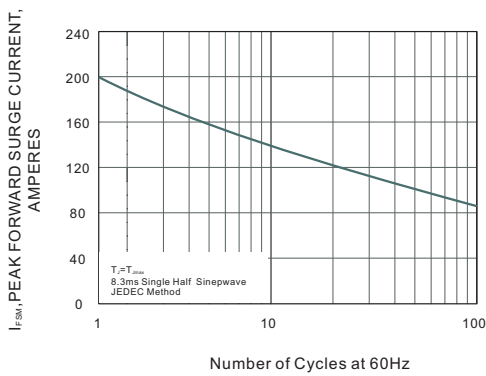


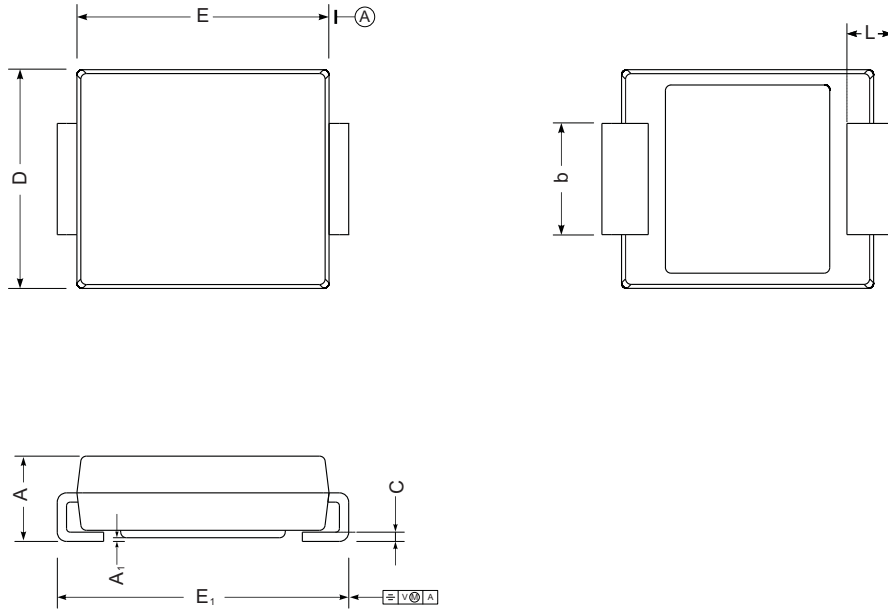
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

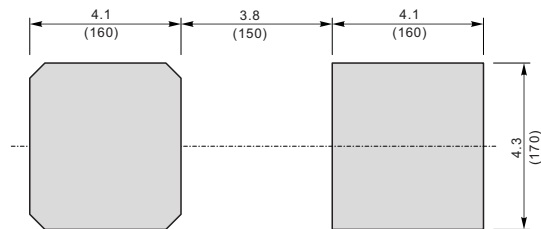
SMC



SMC mechanical data

UNIT		A	E	D	E ₁	A ₁	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

The recommended mounting pad size



Unit: $\frac{\text{mm}}{\text{mil}}$