KUUSMCJ Series

Transient Voltage Suppressor

Datasheet

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

PINNING

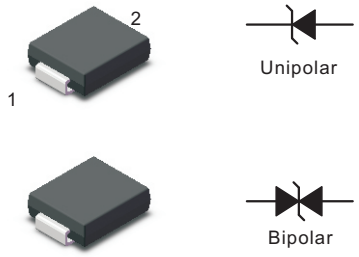
PIN	DESCRIPTION
1	Cathode
2	Anode

FEATURES

- 1500W peak pulse power capability at 10/1000μs 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)



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°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	°C/W
Operating Junction Temperature and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

NOTES:

1. Mounted on 8 mm^2 (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
KUUSMCJ5.0A	KUUSMCJ5.0CA	GDE	BDE	5	6.4	7	10	9.2	163	800
KUUSMCJ6.0A	KUUSMCJ6.0CA	GDG	BDG	6	6.67	7.37	10	10.3	145.7	800
KUUSMCJ6.5A	KUUSMCJ6.5CA	GDK	BDK	6.5	7.22	7.98	10	11.2	134	500
KUUSMCJ7.0A	KUUSMCJ7.0CA	GDM	BDM	7	7.78	8.6	10	12	125	200
KUUSMCJ7.5A	KUUSMCJ7.5CA	GDP	BDP	7.5	8.33	9.21	1	12.9	116.3	100
KUUSMCJ8.0A	KUUSMCJ8.0CA	GDR	BDR	8	8.89	9.83	1	13.6	110.3	50
KUUSMCJ8.5A	KUUSMCJ8.5CA	GDT	BDT	8.5	9.44	10.4	1	14.4	104.2	20
KUUSMCJ9.0A	KUUSMCJ9.0CA	GDV	BDV	9	10	11.1	1	15.4	97.4	10
KUUSMCJ10A	KUUSMCJ10CA	GDX	BDX	10	11.1	12.3	1	17	88.3	5
KUUSMCJ11A	KUUSMCJ11CA	GDZ	BDZ	11	12.2	13.5	1	18.2	82.5	1
KUUSMCJ12A	KUUSMCJ12CA	GEE	BEE	12	13.3	14.7	1	19.9	75.4	1
KUUSMCJ13A	KUUSMCJ13CA	GEG	BEG	13	14.4	15.9	1	21.5	69.8	1
KUUSMCJ14A	KUUSMCJ14CA	GEK	BEK	14	15.6	17.2	1	23.2	64.7	1
KUUSMCJ15A	KUUSMCJ15CA	GEM	BEM	15	16.7	18.5	1	24.4	61.5	1
KUUSMCJ16A	KUUSMCJ16CA	GEP	BEP	16	17.8	19.7	1	26	57.7	1
KUUSMCJ17A	KUUSMCJ17CA	GER	BER	17	18.9	20.9	1	27.6	54.4	1
KUUSMCJ18A	KUUSMCJ18CA	GET	BET	18	20	22.1	1	29.2	51.4	1
KUUSMCJ20A	KUUSMCJ20CA	GEV	BEV	20	22.2	24.5	1	32.4	46.3	1
KUUSMCJ22A	KUUSMCJ22CA	GEX	BEX	22	24.4	26.9	1	35.5	42.3	1
KUUSMCJ24A	KUUSMCJ24CA	GEZ	BEZ	24	26.7	29.5	1	38.9	38.6	1
KUUSMCJ26A	KUUSMCJ26CA	GFE	BFE	26	28.9	31.9	1	42.1	35.7	1
KUUSMCJ28A	KUUSMCJ28CA	GFG	BFG	28	31.1	34.4	1	45.4	33.1	1
KUUSMCJ30A	KUUSMCJ30CA	GFK	BFK	30	33.3	36.8	1	48.4	31	1
KUUSMCJ33A	KUUSMCJ33CA	GFM	BFM	33	36.7	40.6	1	53.3	28.2	1
KUUSMCJ36A	KUUSMCJ36CA	GFP	BFP	36	40	44.2	1	58.1	25.9	1
KUUSMCJ40A	KUUSMCJ40CA	GFR	BFR	40	44.4	49.1	1	64.5	23.3	1
KUUSMCJ43A	KUUSMCJ43CA	GFT	BFT	43	47.8	52.8	1	69.4	21.7	1
KUUSMCJ45A	KUUSMCJ45CA	GFV	BFV	45	50	55.3	1	72.7	20.6	1
KUUSMCJ48A	KUUSMCJ48CA	GFX	BFX	48	53.3	58.9	1	77.4	19.4	1
KUUSMCJ51A	KUUSMCJ51CA	GFZ	BFZ	51	56.7	62.7	1	82.4	18.2	1
KUUSMCJ54A	KUUSMCJ54CA	GGE	BGE	54	60	66.3	1	87.1	17.3	1
KUUSMCJ58A	KUUSMCJ58CA	GGG	BGG	58	64.4	71.2	1	93.6	16.1	1
KUUSMCJ60A	KUUSMCJ60CA	GGK	BGK	60	66.7	73.7	1	96.8	15.5	1
KUUSMCJ64A	KUUSMCJ64CA	GGM	BGM	64	71.1	78.6	1	103	14.6	1
KUUSMCJ70A	KUUSMCJ70CA	GGP	BGP	70	77.8	86	1	113	13.3	1
KUUSMCJ75A	KUUSMCJ75CA	GGR	BGR	75	83.3	92.1	1	121	12.4	1
KUUSMCJ78A	KUUSMCJ78CA	GGT	BGT	78	86.7	95.8	1	126	11.9	1
KUUSMCJ85A	KUUSMCJ85CA	GGV	BGV	85	94.4	104	1	137	11	1
KUUSMCJ90A	KUUSMCJ90CA	GGX	BGX	90	100	111	1	146	10.3	1
KUUSMCJ100A	KUUSMCJ100CA	GGZ	BGZ	100	111	123	1	162	9.3	1
KUUSMCJ110A	KUUSMCJ110CA	GHE	BHE	110	122	135	1	177	8.5	1
KUUSMCJ120A	KUUSMCJ120CA	GHG	BHG	120	133	147	1	193	7.8	1
KUUSMCJ130A	KUUSMCJ130CA	GHK	BHK	130	144	159	1	209	7.2	1
KUUSMCJ150A	KUUSMCJ150CA	GHM	BHM	150	167	185	1	243	6.2	1
KUUSMCJ160A	KUUSMCJ160CA	GHP	BHP	160	178	197	1	259	5.8	1
KUUSMCJ170A	KUUSMCJ170CA	GHR	BHR	170	189	209	1	275	5.5	1
KUUSMCJ180A	KUUSMCJ180CA	GHT	BHT	180	201	222	1	292	5.1	1
KUUSMCJ200A	KUUSMCJ200CA	GHV	BHV	200	224	247	1	324	4.6	1
KUUSMCJ220A	KUUSMCJ220CA	GHX	BHX	220	246	272	1	356	4.2	1
KUUSMCJ250A	KUUSMCJ250CA	GHZ	BHZ	250	279	309	1	405	3.7	1
KUUSMCJ300A	KUUSMCJ300CA	GJE	BJE	300	335	371	1	486	3.1	1
KUUSMCJ350A	KUUSMCJ350CA	GJG	BJG	350	391	432	1	567	2.6	1
KUUSMCJ400A	KUUSMCJ400CA	GJK	BJK	400	447	494	1	648	2.3	1
KUUSMCJ440A	KUUSMCJ440CA	GJM	BJM	440	492	543	1	713	2.1	1

Fig.1 Peak Pulse Power Rating Curve

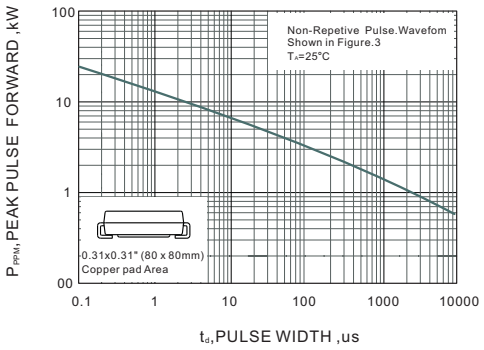


Fig.2 Pulse Waveform

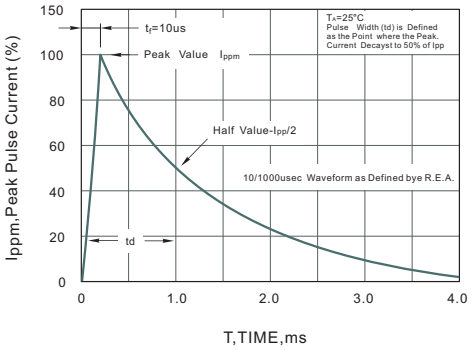


Fig.3 Forward Current Derating Curve

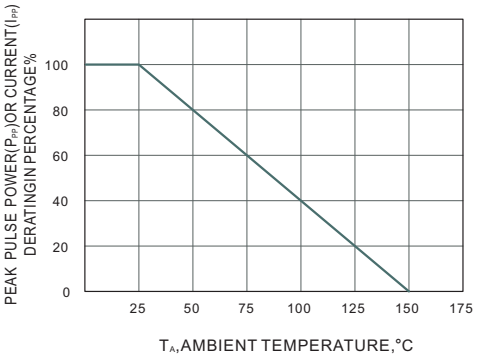


Fig.4 Typical Junction Capacitance

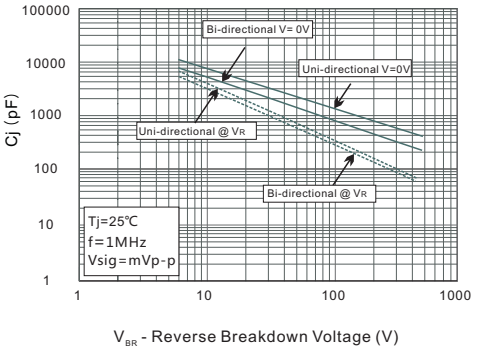
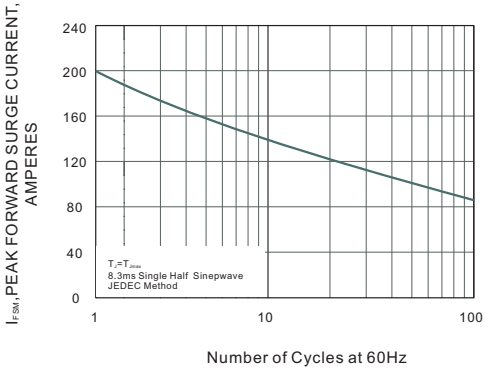
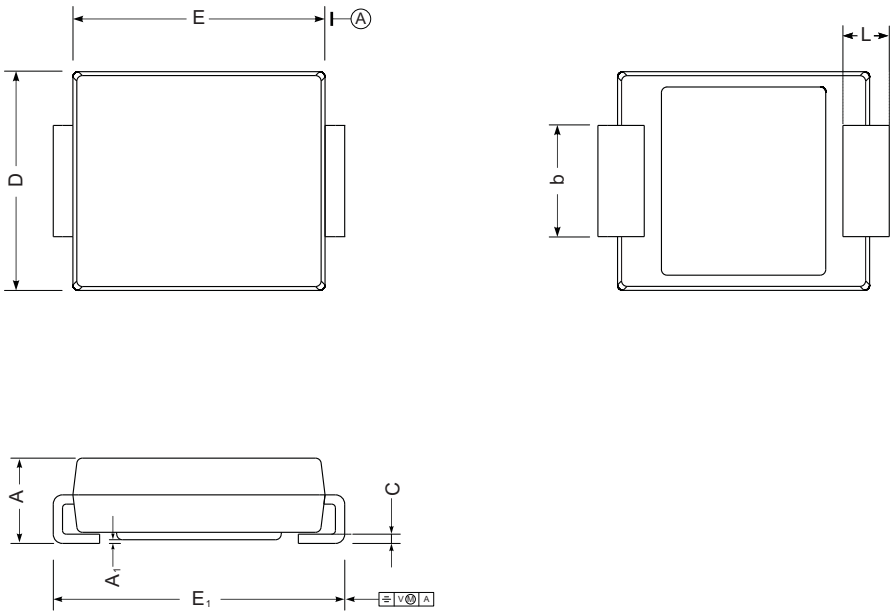


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

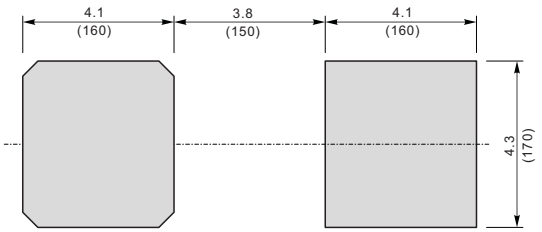
Plastic surface mounted package; 2 leads **SMC**



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 : mm / (mil)