

Features

- Peak power dissipation 1500W@10 x 1000 us Pluse
- Low incremental surge resistance
- Excellent clamping capability
- Glass passivated junction
- Fast response time
- Typical IR less than 1uA above 10V
- Halogen free and RoHS compliant

Mechanical Data

- CASE: SMCJ(DO-214AB) Molded Plastic
- Polarity: By cathode band denotes uni-directional decive, none cathode band denotes bi-directional device
- Mounting Position:Any



SMC top view



Bi-directional



Uni-direction



Halogen-Free

Maximum Ratings(T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
P _{PPM}	Peak Pulse Power Dissipation on 10/1000 us Waveform (Note1,2,FIG.1)	1500	W
P _D	Power Dissipation on Infinite Heat Sink at TL=50°C	6.5	W
I _{PPM}	Peak Pulse Current of on 10/1000 us Waveform (Note1,FIG.3)	SeeTable1	A
I _{FSM}	Peak Forward Surge Current,8.3ms Single Half Sine-Wave (Note2.3)	200	A
T _J	Operating Junction Temperature Range	-55~+150	°C
T _{stg}	Storage Temperature Range	-55~+150	°C

Notes: 1. Non-repetitive current pulse, per Fig.3 and derated above TA=25° C per Fig.2.
2. Measured on 8.3ms single half sine-wave, or equivalent square wave, for Unidirectional device only.

**MLSM****MICROELECTRONICS****SMCJ Series****1500W Surface Mount Transient Voltage Suppression****T_a=25°C unless otherwise specified**

Typst Number		Marking		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I _T	Breakdown Voltage Max. @ I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RMW}
Uni	Bi	Uni	Bi	V _{RMW} (V)	V _{BR MIN} (V)	V _{BR MAX} (V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (uA)
SMCJ5.0A	SMCJ5.0CA	GDE	BDE	5.0	6.40	7.00	10	9.2	163.0	800
SMCJ6.0A	SMCJ6.0CA	GDG	BDG	6.0	6.67	7.37	10	10.3	145.7	800
SMCJ6.5A	SMCJ6.5CA	GDK	BDK	6.5	7.22	7.98	10	11.2	134.0	500
SMCJ7.0A	SMCJ7.0CA	GDM	BFM	7.0	7.78	8.60	10	12.0	125.0	200
SMCJ7.5A	SMCJ7.5CA	GDP	BDP	7.5	8.33	9.21	1	12.9	116.3	100
SMCJ8.0A	SMCJ8.0CA	GDR	BDR	8.0	8.89	9.83	1	13.6	110.3	50
SMCJ8.5A	SMCJ8.5CA	GDT	BDT	8.5	9.44	10.40	1	14.4	104.2	20
SMCJ9.0A	SMCJ9.0CA	GDV	BDV	9.0	10.0	11.1	1	15.4	97.4	10
SMCJ10A	SMCJ10CA	GDX	BDX	10.0	11.1	12.3	1	17.0	88.3	5
SMCJ11A	SMCJ11CA	GDZ	BDZ	11.0	12.2	13.5	1	18.2	82.5	1
SMCJ12A	SMCJ12CA	GEE	BEE	12.0	13.3	14.7	1	19.9	75.4	1
SMCJ13A	SMCJ13CA	GEG	BEG	13.0	14.4	15.9	1	21.5	69.8	1
SMCJ14A	SMCJ14CA	GEK	BEK	14.0	15.6	17.2	1	23.2	64.7	1
SMCJ15A	SMCJ15CA	GEM	BEM	15.0	16.7	18.5	1	24.4	61.5	1
SMCJ16A	SMCJ16CA	GEP	BEP	16.0	17.8	19.7	1	26.0	57.7	1
SMCJ17A	SMCJ17CA	GER	BER	17.0	18.9	20.9	1	27.6	54.4	1
SMCJ18A	SMCJ18CA	GET	BET	18.0	20.0	22.1	1	29.2	51.4	1
SMCJ20A	SMCJ20CA	GEV	BEV	20	22.2	24.5	1	32.4	46.3	1
SMCJ22A	SMCJ22CA	GEX	BEX	22	24.4	26.9	1	35.5	42.3	1
SMCJ24A	SMCJ24CA	GEZ	BEZ	24	26.7	29.5	1	38.9	38.6	1
SMCJ26A	SMCJ26CA	GFE	BFE	26	28.9	31.9	1	42.1	35.7	1
SMCJ28A	SMCJ28CA	GFG	BFG	28	31.1	34.4	1	45.4	33.1	1
SMCJ30A	SMCJ30CA	GFK	BFK	30	33.3	36.8	1	48.4	31.0	1
SMCJ33A	SMCJ33CA	GFM	BFM	33	36.7	40.6	1	53.3	28.2	1
SMCJ36A	SMCJ36CA	GFP	BFP	36	40.0	44.2	1	58.1	25.9	1
SMCJ40A	SMCJ40CA	GFR	BFR	40	44.4	49.1	1	64.5	23.3	1
SMCJ43A	SMCJ43CA	GFT	BFT	43	47.8	52.8	1	69.4	21.7	1
SMCJ45A	SMCJ45CA	GFV	BFV	45	50.0	55.3	1	72.7	20.6	1
SMCJ48A	SMCJ48CA	GFX	BFX	48	53.3	58.9	1	77.4	19.4	1
SMCJ51A	SMCJ51CA	GFZ	BFZ	51	56.7	62.7	1	82.4	18.2	1
SMCJ54A	SMCJ54CA	GGE	BGE	54	60.0	66.3	1	87.1	17.3	1
SMCJ58A	SMCJ58CA	GGG	BGG	58	64.4	71.2	1	93.6	16.1	1
SMCJ60A	SMCJ60CA	GGK	BGK	60	66.7	73.7	1	96.8	15.5	1
SMCJ64A	SMCJ64CA	GGM	BGM	64	71.1	78.6	1	103.0	14.6	1
SMCJ70A	SMCJ70CA	GGP	BGP	70	77.8	86.0	1	113.0	13.3	1
SMCJ75A	SMCJ75CA	GGR	BGR	75	83.3	92.1	1	121.0	12.4	1
SMCJ78A	SMCJ78CA	GGT	BGT	78	86.7	95.8	1	126.0	11.9	1
SMCJ85A	SMCJ85CA	GGV	BGV	85	94.4	104	1	137.0	11.0	1
SMCJ90A	SMCJ90CA	GGX	BGX	90	100	111	1	146.0	10.3	1
SMCJ100A	SMCJ100CA	GGZ	BGZ	100	111	123	1	162.0	9.3	1
SMCJ110A	SMCJ110CA	GHE	BHE	110	122	135	1	177.0	8.5	1
SMCJ120A	SMCJ120CA	GHG	BHG	120	133	147	1	193.0	7.8	1
SMCJ130A	SMCJ130CA	GHK	BHK	130	144	159	1	209.0	7.2	1
SMCJ150A	SMCJ150CA	GHM	BGM	150	167	185	1	243.0	6.2	1
SMCJ160A	SMCJ160CA	GHP	BHP	160	178	197	1	259.0	5.8	1
SMCJ170A	SMCJ170CA	GHR	BHR	170	189	209	1	275.0	5.5	1
SMCJ180A	SMCJ180CA	GHT	BHT	180	201	222	1	292.0	5.1	1
SMCJ200A	SMCJ200CA	GHV	BHV	200	224	247	1	324.0	4.6	1
SMCJ220A	SMCJ220CA	GHX	BHX	220	246	272	1	356.0	4.2	1
SMCJ250A	SMCJ250CA	GHZ	BHZ	250	279	309	1	405.0	3.7	1
SMCJ300A	SMCJ300CA	GJE	BJE	300	335	371	1	486.0	3.1	1
SMCJ350A	SMCJ350CA	GJG	BJG	350	391	432	1	567.0	2.6	1
SMCJ400A	SMCJ400CA	GJK	BJK	400	447	494	1	648.0	2.3	1
SMCJ440A	SMCJ440CA	GJM	BJM	440	492	543	1	713.0	2.1	1

Notes: 1. For Bi-directional type having VRWM of 10 Volts and less, the IR limit is double.
2. For parts without A, the VBR is $\pm 10\%$ and VC is 5% higher than with A parts.



Typical Characteristics

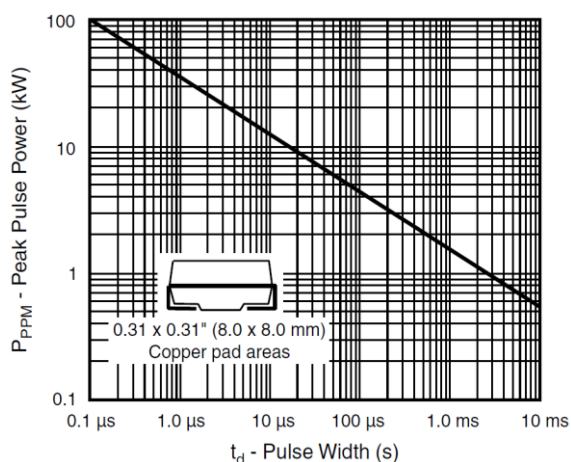


Fig. 1 - Peak Pulse Power Rating Curve

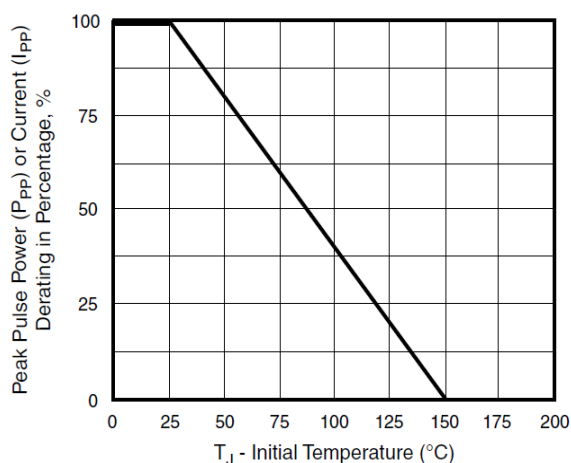


Fig. 2 - Pulse Power or Current vs. Initial Junction Temperature

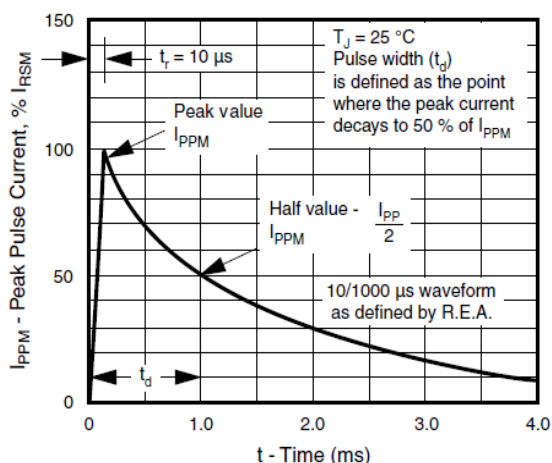


Fig. 3 - Pulse Waveform

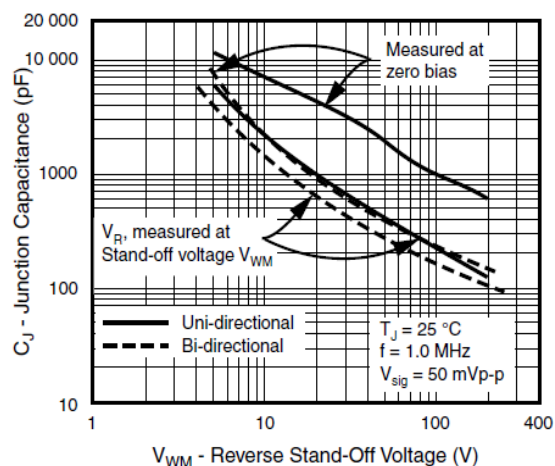
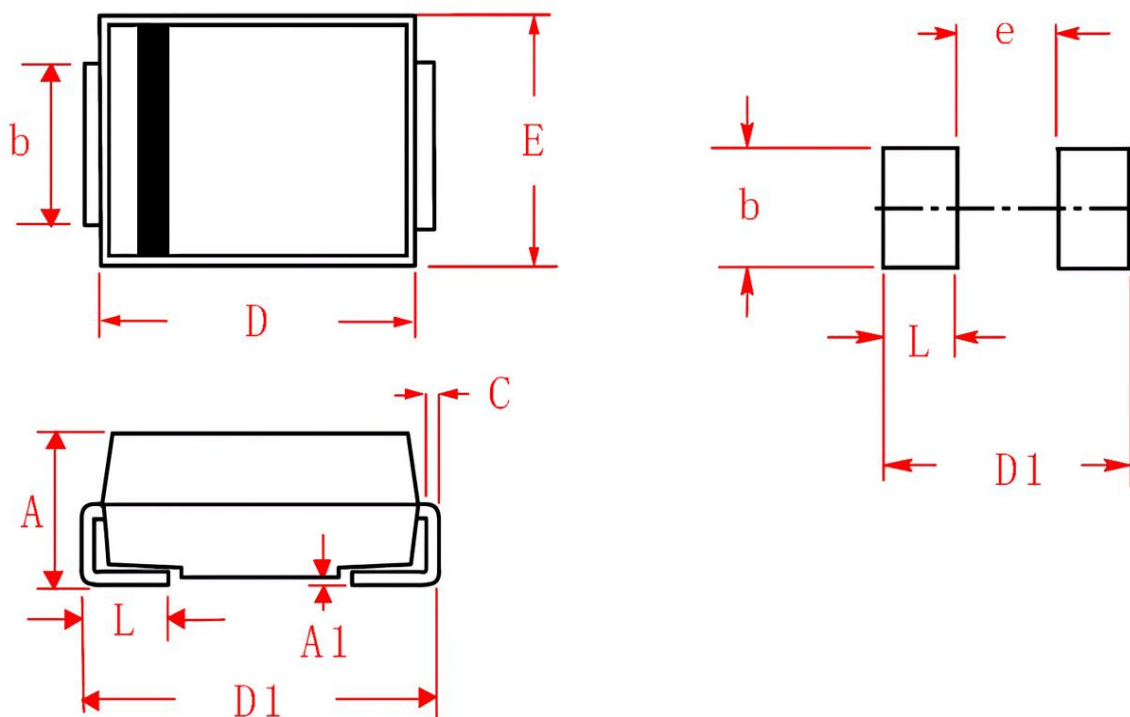


Fig. 4 - Typical Junction Capacitance Uni-Directional



SMC Package information

SMC (DO-214AB)



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	2.000	2.620	0.079	0.103
A1	0.050	0.210	0.002	0.008
b	2.750	3.250	0.108	0.128
C	0.150	0.310	0.006	0.012
D	6.500	7.000	0.256	0.275
D1	7.600	8.000	0.299	0.315
E	5.600	6.200	0.220	0.244
e	-	4.690	-	0.185
L	0.900	1.600	0.035	0.063