3.DATA SHEET

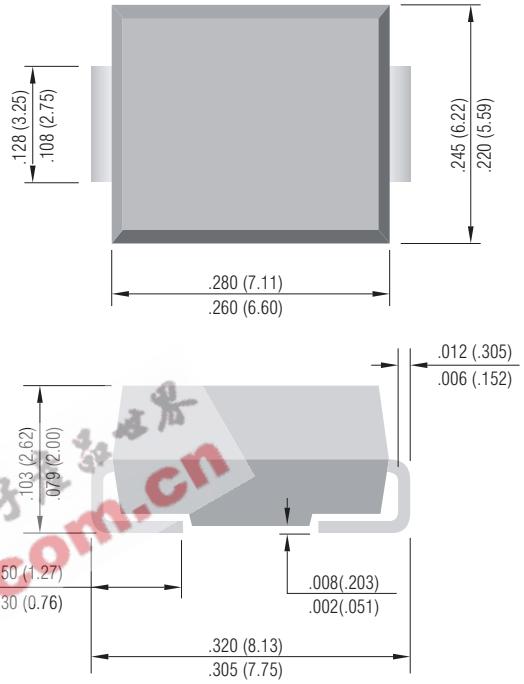
1.5SMCJ SERIES

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE - 5.0 to 220 Volts 1500 Watt Peak Power Pulse

SMC / DO-214AB

Unit: inch (mm)



FEATURES

- For surface mounted applications in order to optimize board space.
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Excellent clamping capability
- Low inductance
- Fast response time: typically less than 1.0 ps from 0 volts to BV min
- Typical IR less than 1μA above 10V
- High temperature soldering : 250°C/10 seconds at terminals.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O

MECHANICAL DATA

Case: JEDEC DO-214AB, Molded plastic over passivated junction
Terminals: Solder plated , solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes positive end (cathode) except Bidirectional.
Standard Packageing: 16mm tape per (EIA-481)
Weight: 0.007 ounces, 0.21 gram

MAXIMUM RATINGS AND CHARACTERISTICS

Rating at 25°Cambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.
For Capacitive load derate current by 20%.

RATING	SYMBOL	VALUE	UNITS
Peak Power Dissipation at T_A=25°C, T_P=1ms(Note 1,2 ,Fig.1)	P_{PPM}	Minimum 1500	Watts
Peak Forward Surge Current,8.3ms single half sine-wave superimposed on rated load (Note 2,3)	I_{FSM}	100.0	Amps
Peak Pulse Current Current on 10/1000μs waveform(Note 1,Fig.3)	I_{PPM}	See Table 1	Amps
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

NOTES:
1.Non-repetitive current pulse, per Fig. 3 and derated above T_A=25°Cper Fig. 2.
2.Mounted on 5.0mm^2 (.013mm thick) land areas.
3 8.3ms , single half sine-wave or equivalent square wave , duty cycle= 4 pulses per minutes maximum.

Part Number	Marking Code		V_{RWM}	V_{BR} @ I_T			I_R @ V_{RWM}		V_C @ I_{PP}		PACKAGE
				Min.	Max.	I_T	UNI-	BI-			
	UNI-	BI-	V	V	V	mA	uA	uA	V	A	
1500W Transient Voltage Suppressor											
1.5SMCJ5.0(C)	GDD	BDD	5.0	6.40	7.55	10	1000	2000	9.6	156.2	SMC/DO-214AB
1.5SMCJ5.0(C)A	GDE	BDE	5.0	6.40	7.25	10	1000	2000	9.2	163.0	SMC/DO-214AB
1.5SMCJ6.0(C)	GDF	BDF	6.0	6.67	8.45	10	1000	2000	11.4	131.6	SMC/DO-214AB
1.5SMCJ6.0(C)A	GDG	BDG	6.0	6.67	7.67	10	1000	2000	10.3	145.6	SMC/DO-214AB
1.5SMCJ6.5(C)	GDH	BDH	6.5	7.22	9.14	10	500	1000	12.3	122.0	SMC/DO-214AB
1.5SMCJ6.5(C)A	GDK	BDK	6.5	7.22	8.30	10	500	1000	11.2	133.9	SMC/DO-214AB
1.5SMCJ7.0(C)	GDL	BDL	7.0	7.78	9.86	10	200	400	13.3	112.8	SMC/DO-214AB
1.5SMCJ7.0(C)A	GDM	BDM	7.0	7.78	8.95	10	200	400	12.0	125.0	SMC/DO-214AB
1.5SMCJ7.5(C)	GDN	BDN	7.5	8.33	10.67	1.0	100	200	14.3	104.9	SMC/DO-214AB
1.5SMCJ7.5(C)A	GDP	BDP	7.5	8.33	9.58	1.0	100	200	12.9	116.3	SMC/DO-214AB
1.5SMCJ8.0(C)	GDQ	BDQ	8.0	8.89	11.30	1.0	50	100	15.0	100.0	SMC/DO-214AB
1.5SMCJ8.0(C)A	GDR	BDR	8.0	8.89	10.23	1.0	50	100	13.6	110.3	SMC/DO-214AB
1.5SMCJ8.5(C)	GDS	BDS	8.5	9.44	11.92	1.0	10	20	15.9	94.3	SMC/DO-214AB
1.5SMCJ8.5(C)A	GDT	BDT	8.5	9.44	10.82	1.0	10	20	14.4	104.2	SMC/DO-214AB
1.5SMCJ9.0(C)	GDU	BDU	9.0	10.0	12.6	1.0	5	10	16.9	88.7	SMC/DO-214AB
1.5SMCJ9.0(C)A	GDV	BDV	9.0	10.0	11.5	1.0	5	10	15.4	97.4	SMC/DO-214AB
1.5SMCJ10(C)	GDW	BDW	10	11.1	14.1	1.0	5	5	18.8	79.8	SMC/DO-214AB
1.5SMCJ10(C)A	GDX	BDX	10	11.1	12.8	1.0	5	5	17.0	88.2	SMC/DO-214AB
1.5SMCJ11(C)	GDY	BDY	11	12.2	15.4	1.0	5	5	20.1	74.6	SMC/DO-214AB
1.5SMCJ11(C)A	GDZ	BDZ	11	12.2	14.0	1.0	5	5	18.2	82.4	SMC/DO-214AB
1.5SMCJ12(C)	GED	BED	12	13.3	16.9	1.0	5	5	22.0	68.2	SMC/DO-214AB
1.5SMCJ12(C)A	GEE	BEE	12	13.3	15.3	1.0	5	5	19.9	75.3	SMC/DO-214AB
1.5SMCJ13(C)	GEF	BEF	13	14.4	18.2	1.0	5	5	23.8	63.0	SMC/DO-214AB
1.5SMCJ13(C)A	GEG	BEG	13	14.4	16.5	1.0	5	5	21.5	69.7	SMC/DO-214AB
1.5SMCJ14(C)	GEH	BEH	14	15.6	19.8	1.0	5	5	25.8	58.1	SMC/DO-214AB
1.5SMCJ14(C)A	GEK	BEK	14	15.6	17.9	1.0	5	5	23.2	64.7	SMC/DO-214AB
1.5SMCJ15(C)	GEL	BEL	15	16.7	21.1	1.0	5	5	26.9	55.8	SMC/DO-214AB
3.0SMCJ15(C)A	GEM	BEM	15	16.7	19.2	1.0	5	5	24.4	61.5	SMC/DO-214AB
1.5SMCJ16(C)	GEN	BEN	16	17.8	22.6	1.0	5	5	28.8	52.1	SMC/DO-214AB
1.5SMCJ16(C)A	GEP	BEP	16	17.8	20.5	1.0	5	5	26.0	57.7	SMC/DO-214AB
1.5SMCJ17(C)	GEQ	BEQ	17	18.9	23.9	1.0	5	5	30.5	49.2	SMC/DO-214AB
1.5SMCJ17(C)A	GER	BER	17	18.9	21.7	1.0	5	5	27.6	53.3	SMC/DO-214AB
1.5SMCJ18(C)	GES	BES	18	20.0	25.3	1.0	5	5	32.2	46.6	SMC/DO-214AB
1.5SMCJ18(C)A	GET	BET	18	20.0	23.3	1.0	5	5	29.2	51.4	SMC/DO-214AB
1.5SMCJ20(C)	GEU	BEU	20	22.2	28.1	1.0	5	5	35.8	41.9	SMC/DO-214AB
1.5SMCJ20(C)A	GEV	BEV	20	22.2	25.5	1.0	5	5	32.4	46.3	SMC/DO-214AB
1.5SMCJ22(C)	GEW	BEW	22	24.4	30.9	1.0	5	5	39.4	38.1	SMC/DO-214AB
1.5SMCJ22(C)A	GEX	BEX	22	24.4	28.0	1.0	5	5	35.5	42.2	SMC/DO-214AB
1.5SMCJ24(C)	GEZ	BEZ	24	26.7	33.8	1.0	5	5	43.0	34.9	SMC/DO-214AB
1.5SMCJ24(C)A	GEY	BEY	24	26.7	30.7	1.0	5	5	38.9	38.6	SMC/DO-214AB
1.5SMCJ26(C)	GFD	BFD	26	28.9	36.6	1.0	5	5	46.6	32.2	SMC/DO-214AB
1.5SMCJ26(C)A	GFE	BFE	26	28.9	33.2	1.0	5	5	42.1	35.6	SMC/DO-214AB
1.5SMCJ28(C)	GFF	BFF	28	31.1	39.4	1.0	5	5	50.0	30.0	SMC/DO-214AB
1.5SMCJ28(C)A	GFG	BFG	28	31.1	35.8	1.0	5	5	45.4	33.0	SMC/DO-214AB
1.5SMCJ30(C)	GFH	BFH	30	33.3	42.2	1.0	5	5	53.5	28.0	SMC/DO-214AB
1.5SMCJ30(C)A	GFK	BFK	30	33.3	38.3	1.0	5	5	48.4	31.0	SMC/DO-214AB
1.5SMCJ33(C)	GFL	BFL	33	36.7	46.5	1.0	5	5	59.0	25.2	SMC/DO-214AB
1.5SMCJ33(C)A	GFM	BFM	33	36.7	42.2	1.0	5	5	53.3	28.1	SMC/DO-214AB
1.5SMCJ36(C)	GFN	BFN	36	40.0	50.7	1.0	5	5	64.3	23.3	SMC/DO-214AB
1.5SMCJ36(C)A	GFP	BFP	36	40.0	46.0	1.0	5	5	58.1	25.8	SMC/DO-214AB
1.5SMCJ40(C)	GFQ	BFQ	40	44.4	56.3	1.0	5	5	71.4	21.0	SMC/DO-214AB
1.5SMCJ40(C)A	GFR	BFR	40	44.4	51.1	1.0	5	5	64.5	23.2	SMC/DO-214AB

Part Number	Marking Code		V_{RWM}	V_{BR} @ I_T			I_R @ V_{RWM}		V_C @ I_{PP}		PACKAGE
				Min.	Max.	I_T	UNI-	Bi-			
	UNI-	Bi-	V	V	V	mA	uA	uA	V	A	
1500W Transient Voltage Suppressor											
1.5SMCJ43(C)	GFS	BFS	43	47.8	60.5	1.0	5	5	76.7	19.6	SMC/DO-214AB
1.5SMCJ43(C)A	GFT	BFT	43	47.8	54.9	1.0	5	5	69.4	21.6	SMC/DO-214AB
1.5SMCJ45(C)	GFU	BFU	45	50.0	63.3	1.0	5	5	80.3	18.7	SMC/DO-214AB
1.5SMCJ45(C)A	GFV	BFV	45	50.0	57.5	1.0	5	5	72.7	20.6	SMC/DO-214AB
1.5SMCJ48(C)	GFW	BFW	48	53.3	67.5	1.0	5	5	85.5	17.5	SMC/DO-214AB
1.5SMCJ48(C)A	GFX	BFX	48	53.3	61.3	1.0	5	5	77.4	19.4	SMC/DO-214AB
1.5SMCJ51(C)	GFY	BFY	51	56.7	71.8	1.0	5	5	91.1	18.5	SMC/DO-214AB
1.5SMCJ51(C)A	GFZ	BFZ	51	56.7	65.2	1.0	5	5	82.4	18.2	SMC/DO-214AB
1.5SMCJ54(C)	GGD	BGD	54	60.0	76.0	1.0	5	5	96.3	15.6	SMC/DO-214AB
1.5SMCJ54(C)A	GGE	BGE	54	60.0	69.0	1.0	5	5	87.1	17.2	SMC/DO-214AB
1.5SMCJ58(C)	GGF	BGF	58	64.4	81.6	1.0	5	5	103	14.6	SMC/DO-214AB
1.5SMCJ58(C)A	GGG	BGG	58	64.4	74.1	1.0	5	5	93.6	16.0	SMC/DO-214AB
1.5SMCJ60(C)	GGH	BGH	60	66.7	84.5	1.0	5	5	107	14.0	SMC/DO-214AB
1.5SMCJ60(C)A	GGK	BGK	60	66.7	76.7	1.0	5	5	96.8	15.5	SMC/DO-214AB
1.5SMCJ64(C)	GGL	BGL	64	71.1	90.1	1.0	5	5	114	13.2	SMC/DO-214AB
1.5SMCJ64(C)A	GGM	BGM	64	71.1	81.8	1.0	5	5	103	14.6	SMC/DO-214AB
1.5SMCJ70(C)	GGN	BGN	70	77.8	98.6	1.0	5	5	125	12.0	SMC/DO-214AB
1.5SMCJ70(C)A	GGP	BGP	70	77.8	89.5	1.0	5	5	113	13.3	SMC/DO-214AB
1.5SMCJ75(C)	GGQ	BGQ	75	83.3	105.7	1.0	5	5	134	11.2	SMC/DO-214AB
1.5SMCJ75(C)A	GGR	BGR	75	83.3	95.8	1.0	5	5	121	12.4	SMC/DO-214AB
1.5SMCJ78(C)	GGS	BGS	78	86.7	109.8	1.0	5	5	139	10.8	SMC/DO-214AB
1.5SMCJ78(C)A	GGT	BGT	78	86.7	99.7	1.0	5	5	126	11.4	SMC/DO-214AB
1.5SMCJ85(C)	GGU	BGU	85	94.4	119.2	1.0	5	5	151	9.9	SMC/DO-214AB
1.5SMCJ85(C)A	GGV	BGV	85	94.4	108.2	1.0	5	5	137	10.4	SMC/DO-214AB
1.5SMCJ90(C)	GGW	BGW	90	100	126.5	1.0	5	5	160	9.4	SMC/DO-214AB
1.5SMCJ90(C)A	GGX	BGX	90	100	115.5	1.0	5	5	146	10.3	SMC/DO-214AB
1.5SMCJ100(C)	GGZ	BGZ	100	111	141.0	1.0	5	5	179	8.4	SMC/DO-214AB
1.5SMCJ100(C)A	GGY	BGY	100	111	128.0	1.0	5	5	162	9.3	SMC/DO-214AB
1.5SMCJ110(C)	GHD	BHD	110	122	154.5	1.0	5	5	196	7.7	SMC/DO-214AB
1.5SMCJ110(C)A	GHE	BHE	110	122	140.5	1.0	5	5	177	8.4	SMC/DO-214AB
1.5SMCJ120(C)	GHF	BHF	120	133	169.0	1.0	5	5	214	7.0	SMC/DO-214AB
1.5SMCJ120(C)A	GHG	BHG	120	133	153.0	1.0	5	5	193	7.9	SMC/DO-214AB
1.5SMCJ130(C)	GHH	BHH	130	144	182.5	1.0	5	5	231	6.5	SMC/DO-214AB
1.5SMCJ130(C)A	GHK	BHK	130	144	165.5	1.0	5	5	209	7.2	SMC/DO-214AB
1.5SMCJ150(C)	GHL	BHL	150	167	211.5	1.0	5	5	268	5.6	SMC/DO-214AB
1.5SMCJ150(C)A	GHM	BHM	150	167	192.5	1.0	5	5	243	6.2	SMC/DO-214AB
1.5SMCJ160(C)	GHN	BHN	160	178	226.0	1.0	5	5	287	5.2	SMC/DO-214AB
1.5SMCJ160(C)A	GHP	BHP	160	178	205.0	1.0	5	5	259	5.8	SMC/DO-214AB
1.5SMCJ170(C)	GHQ	BHQ	170	189	239.5	1.0	5	5	304	4.9	SMC/DO-214AB
1.5SMCJ170(C)A	GHR	BHR	170	189	217.5	1.0	5	5	275	5.5	SMC/DO-214AB
1.5SMCJ180(C)	GHS	BHS	180	198	253.8	1.0	5	5	322	4.7	SMC/DO-214AB
1.5SMCJ180(C)A	GHT	BHT	180	198	230.4	1.0	5	5	292	5.1	SMC/DO-214AB
1.5SMCJ190(C)	GHU	BHU	190	209	267.9	1.0	5	5	340	4.4	SMC/DO-214AB
1.5SMCJ190(C)A	GHV	BHV	190	209	243.2	1.0	5	5	308	4.8	SMC/DO-214AB
1.5SMCJ200(C)	GHW	BHW	200	220	282.0	1.0	5	5	358	4.1	SMC/DO-214AB
1.5SMCJ200(C)A	GHX	BHX	200	220	256.0	1.0	5	5	324	4.6	SMC/DO-214AB
1.5SMCJ210(C)	GHY	BHY	210	231	296.1	1.0	5	5	376	4.0	SMC/DO-214AB
1.5SMCJ210(C)A	GHZ	BHZ	210	231	268.8	1.0	5	5	340	4.4	SMC/DO-214AB
1.5SMCJ220(C)	GID	BID	220	242	310.2	1.0	5	5	394	3.8	SMC/DO-214AB
1.5SMCJ220(C)A	GIE	BIE	220	242	281.6	1.0	5	5	356	4.2	SMC/DO-214AB

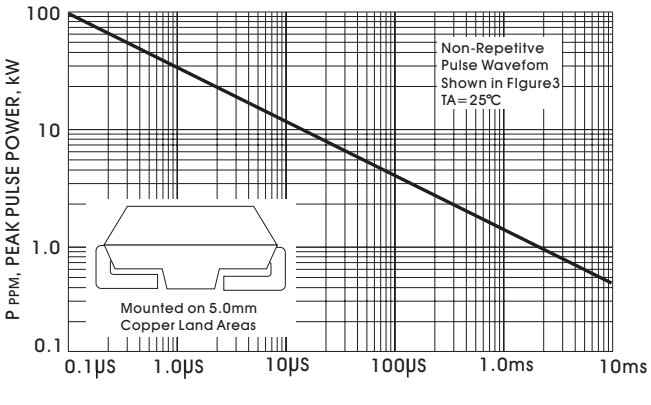


FIGURE 1-PEAK PULSE POWER RATING CURVE

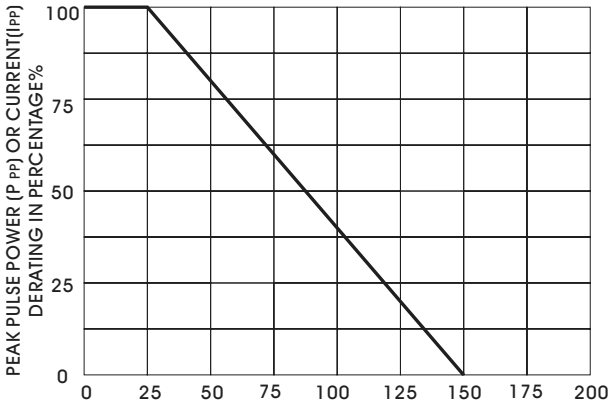


FIGURE2 DERATING CURVE

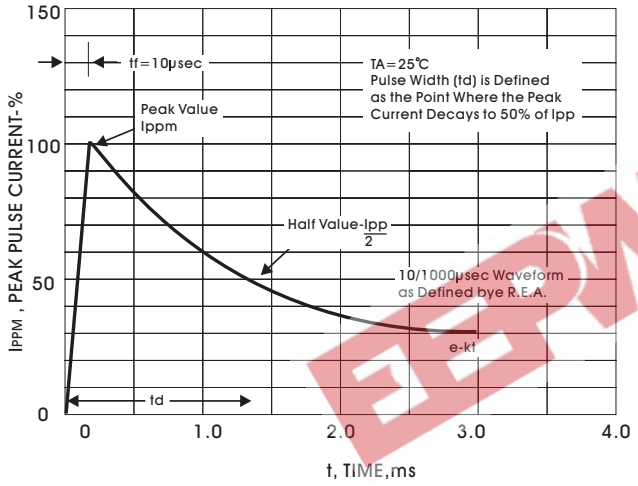


FIGURE 3-PULSE WAVEFORM

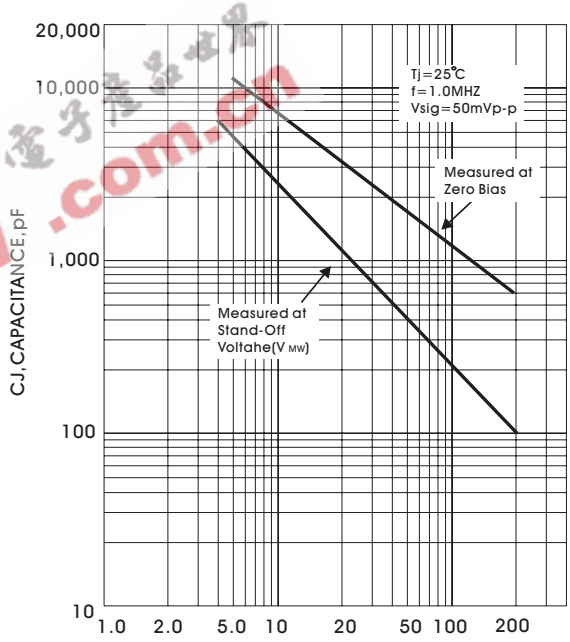


FIGURE 4TYPICAL CAPACITANCE

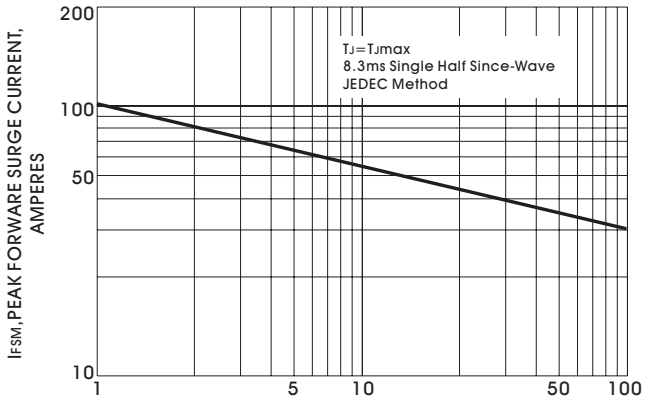


FIG.5-MAXIMUM NON-REPETITIVE PEAK FOWARD SURGE CURRENT UNIDIRECTIONAL