1.5SMCJ SERIES

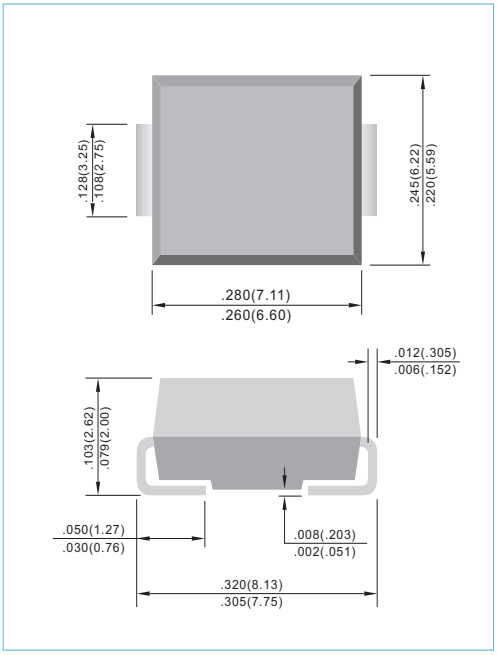
SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE 5.0 to 220 Volts **PEAK PULSE POWER** 1500 Watts **SMC/DO-214AB** Unit: inch (mm)

Recongnized File # E210467

FEATURES

- For surface mounted applications in order to optimize board space.
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- High temperature soldering : 260°C /10 seconds at terminals
- In compliance with EU RoHS 2002/95/EC directives



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)
- Standard Packaging:16mm tape (EIA-481)
- Weight: 0.007 ounce, 0.021 gram

DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types 1.5SMCJ5.0 thru types 1.5SMCJ220.
Electrical characteristics apply in both directions.

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^{O}C,T_P=1ms(Note1,2,Fig1)	P_{PPM}	1500	Watts
Peak Forward Surge Cunent,8.3ms single halfsine-wave (Note 2,3)	I_{FSM}	100	Amps
Peak Pulse Current on 10/1000s waveform (Note1,Fig.3)	I_{PPM}	See Table 1	Amps
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150	^{O}C
Maximum Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	75 15	^{O}C / W

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.Measured on 8.3ms , single half sine-wave or equivalent square wave , duty cycle= 4 pulses per minutes maximum.

PANJIT SEMI CONDUCTOR

1.5SMCJ SERIES

Part Number		V_{RWM}	V_{BR} @ I_T			I_R @ V_{RWM}		V_C @ I_{PP}		Marking Code	
			Min.	Max.	I_T	UNI-	BI-				
UNI-	BI-	V	V	V	mA	µA	µA	V	A	UNI-	BI-
1500W Transient Voltage Suppressor											
1.5SMCJ5.0	1.5SMCJ5.0C	5	6.4	7.55	10	1000	2000	9.6	156.2	GDD	BDD
1.5SMCJ5.0A	1.5SMCJ5.0CA	5	6.4	7.25	10	1000	2000	9.2	163	GDE	BDE
1.5SMCJ6.0	1.5SMCJ6.0C	6	6.67	8.45	10	1000	2000	11.4	131.6	GDF	BDF
1.5SMCJ6.0A	1.5SMCJ6.0CA	6	6.67	7.67	10	1000	2000	10.3	145.6	GDG	BDG
1.5SMCJ6.5	1.5SMCJ6.5C	6.5	7.22	9.14	10	500	1000	12.3	122	GDH	BDH
1.5SMCJ6.5A	1.5SMCJ6.5CA	6.5	7.22	8	10	500	1000	11.2	133.9	GDK	BDK
1.5SMCJ7.0	1.5SMCJ7.0C	7	7.78	9.86	10	200	400	13.3	112.8	GDL	BDL
1.5SMCJ7.0A	1.5SMCJ7.0CA	7	7.78	8.95	10	200	400	12	125	GDM	BDM
1.5SMCJ7.5	1.5SMCJ7.5C	7.5	8.33	10.67	1	100	200	14.3	104.9	GDN	BDN
1.5SMCJ7.5A	1.5SMCJ7.5CA	7.5	8.33	9.58	1	100	200	12.9	116.3	GDP	BDP
1.5SMCJ8.0	1.5SMCJ8.0C	8	8.89	11	1	50	100	15	100	GDQ	BDQ
1.5SMCJ8.0A	1.5SMCJ8.0CA	8	8.89	10.23	1	50	100	13.6	110.3	GDR	BDR
1.5SMCJ8.5	1.5SMCJ8.5C	8.5	9.44	11.92	1	25	50	15.9	94.3	GDS	BDS
1.5SMCJ8.5A	1.5SMCJ8.5CA	8.5	9.44	10.82	1	25	50	14.4	104.2	GDT	BDT
1.5SMCJ9.0	1.5SMCJ9.0C	9	10	12.6	1	10	20	16.9	88.7	GDU	BDU
1.5SMCJ9.0A	1.5SMCJ9.0CA	9	10	11.5	1	10	20	15.4	97.4	GDV	BDV
1.5SMCJ10	1.5SMCJ10C	10	11.1	14.1	1	5	5	18.8	79.8	GDW	BDW
1.5SMCJ10A	1.5SMCJ10CA	10	11.1	12.8	1	5	5	17	88.2	GDX	BDX
1.5SMCJ11	1.5SMCJ11C	11	12.2	15.4	1	5	5	20.1	74.6	GDY	BDY
1.5SMCJ11A	1.5SMCJ11CA	11	12.2	14	1	5	5	18.2	82.4	GDZ	BDZ
1.5SMCJ12	1.5SMCJ12C	12	13.3	16.9	1	5	5	22	68.2	GED	BED
1.5SMCJ12A	1.5SMCJ12CA	12	13.3	15.3	1	5	5	19.9	75.3	GEE	BEE
1.5SMCJ13	1.5SMCJ13C	13	14.4	18.2	1	5	5	23.8	63	GEF	BEF
1.5SMCJ13A	1.5SMCJ13CA	13	14.4	16.5	1	5	5	21.5	69.7	GEG	BEG
1.5SMCJ14	1.5SMCJ14C	14	15.6	19.8	1	5	5	25.8	58.1	GEH	BEH
1.5SMCJ14A	1.5SMCJ14CA	14	15.6	17.9	1	5	5	23.2	64.7	GEK	BEK
1.5SMCJ15	1.5SMCJ15C	15	16.7	21.1	1	5	5	26.9	55.8	GEL	BEL
1.5SMCJ15A	1.5SMCJ15CA	15	16.7	19.2	1	5	5	24.4	61.5	GEM	BEM
1.5SMCJ16	1.5SMCJ16C	16	17.8	22.6	1	5	5	28.8	52.1	GEN	BEN
1.5SMCJ16A	1.5SMCJ16CA	16	17.8	20.5	1	5	5	26	57.7	GEP	BEP
1.5SMCJ17	1.5SMCJ17C	17	18.9	23.9	1	5	5	30.5	49.2	GEQ	BEQ
1.5SMCJ17A	1.5SMCJ17CA	17	18.9	21.7	1	5	5	27.6	53.3	GER	BER
1.5SMCJ18	1.5SMCJ18C	18	20	25.3	1	5	5	32.2	46.6	GES	BES
1.5SMCJ18A	1.5SMCJ18CA	18	20	23.3	1	5	5	29.2	51.4	GET	BET
1.5SMCJ20	1.5SMCJ20C	20	22.2	28.1	1	5	5	35.8	41.9	GEU	BEU
1.5SMCJ20A	1.5SMCJ20CA	20	22.2	25.5	1	5	5	32.4	46.3	GEV	BEV
1.5SMCJ22	1.5SMCJ22C	22	24.4	30.9	1	5	5	39.4	38.1	GEW	BEW
1.5SMCJ22A	1.5SMCJ22CA	22	24.4	28	1	5	5	35.5	42.2	GEX	BEX
1.5SMCJ24	1.5SMCJ24C	24	26.7	33.8	1	5	5	43	34.9	GEY	BEY
1.5SMCJ24A	1.5SMCJ24CA	24	26.7	30.7	1	5	5	38.9	38.6	GEZ	BEZ
1.5SMCJ26	1.5SMCJ26C	26	28.9	36.6	1	5	5	46.6	32.2	GFD	BFD
1.5SMCJ26A	1.5SMCJ26CA	26	28.9	33.2	1	5	5	42.1	35.6	GFE	BFE
1.5SMCJ28	1.5SMCJ28C	28	31.1	39.4	1	5	5	50	30	GFF	BFF
1.5SMCJ28A	1.5SMCJ28CA	28	31.1	35.8	1	5	5	45.4	33	GFG	BFG
1.5SMCJ30	1.5SMCJ30C	30	33.3	42.2	1	5	5	53.5	28	GFH	BFH
1.5SMCJ30A	1.5SMCJ30CA	30	33.3	38.3	1	5	5	48.4	31	GFK	BFK
1.5SMCJ33	1.5SMCJ33C	33	36.7	46.5	1	5	5	59	25.2	GFL	BFL
1.5SMCJ33A	1.5SMCJ33CA	33	36.7	42.2	1	5	5	53.3	28.1	GFM	BFM
1.5SMCJ36	1.5SMCJ36C	36	40	50.7	1	5	5	64.3	23.3	GFN	BFN
1.5SMCJ36A	1.5SMCJ36CA	36	40	46	1	5	5	58.1	25.8	GFP	BFP
1.5SMCJ40	1.5SMCJ40C	40	44.4	56.3	1	5	5	71.4	21	GFQ	BFQ
1.5SMCJ40A	1.5SMCJ40CA	40	44.4	51.1	1	5	5	64.5	23.2	GFR	BFR

1.5SMCJ SERIES

Part Number		V_{RWM}	V_{BR} @ I_T			I_R @ V_{RWM}		V_C @ I_{PP}		Marking Code	
			Min.	Max.	I_T	UNI-	BI-				
UNI-	BI-	V	V	V	mA	µA	µA	V	A	UNI-	BI-
1500W Transient Voltage Suppressor											
1.5SMCJ43	1.5SMCJ43C	43	47.8	61	1	5	5	76.7	19.6	GFS	BFS
1.5SMCJ43A	1.5SMCJ43CA	43	47.8	55	1	5	5	69.4	21.6	GFT	BFT
1.5SMCJ45	1.5SMCJ45C	45	50	63	1	5	5	80.3	18.7	GFU	BFU
1.5SMCJ45A	1.5SMCJ45CA	45	50	57.5	1	5	5	72.7	20.6	GFV	BFV
1.5SMCJ48	1.5SMCJ48C	48	53.3	67.5	1	5	5	85.5	17.5	GFW	BFW
1.5SMCJ48A	1.5SMCJ48CA	48	53.3	61.3	1	5	5	77.4	19.4	GFX	BFX
1.5SMCJ51	1.5SMCJ51C	51	56.7	71.8	1	5	5	91.1	18.5	GFY	BFY
1.5SMCJ51A	1.5SMCJ51CA	51	56.7	65.2	1	5	5	82.4	18.2	GFZ	BFZ
1.5SMCJ54	1.5SMCJ54C	54	60	76	1	5	5	96.3	15.6	GGD	BGD
1.5SMCJ54A	1.5SMCJ54CA	54	60	69	1	5	5	87.1	17.2	GGE	BGE
1.5SMCJ58	1.5SMCJ58C	58	64.4	81.6	1	5	5	103	14.6	GGF	BGF
1.5SMCJ58A	1.5SMCJ58CA	58	64.4	74.1	1	5	5	93.6	16	GGG	BGG
1.5SMCJ60	1.5SMCJ60C	60	66.7	84.5	1	5	5	107	14	GGH	BGH
1.5SMCJ60A	1.5SMCJ60CA	60	66.7	76.7	1	5	5	96.8	15.5	GGK	BGK
1.5SMCJ64	1.5SMCJ64C	64	71.1	90.1	1	5	5	114	13.2	GGL	BGL
1.5SMCJ64A	1.5SMCJ64CA	64	71.1	81.8	1	5	5	103	14.6	GGM	BGM
1.5SMCJ70	1.5SMCJ70C	70	77.8	98.6	1	5	5	125	12	GGN	BGN
1.5SMCJ70A	1.5SMCJ70CA	70	77.8	89.5	1	5	5	113	13.3	GGP	BGP
1.5SMCJ75	1.5SMCJ75C	75	83.3	105.7	1	5	5	134	11.2	GGQ	BGQ
1.5SMCJ75A	1.5SMCJ75CA	75	83.3	95.8	1	5	5	121	12.4	GGR	BGR
1.5SMCJ78	1.5SMCJ78C	78	86.7	109.8	1	5	5	139	10.8	GGS	BGS
1.5SMCJ78A	1.5SMCJ78CA	78	86.7	99.7	1	5	5	126	11.4	GGT	BGT
1.5SMCJ85	1.5SMCJ85C	85	94.4	119.2	1	5	5	151	9.9	GGU	BGU
1.5SMCJ85A	1.5SMCJ85CA	85	94.4	108.2	1	5	5	137	10.4	GGV	BGV
1.5SMCJ90	1.5SMCJ90C	90	100	126.5	1	5	5	160	9.4	GGW	BGW
1.5SMCJ90A	1.5SMCJ90CA	90	100	115.5	1	5	5	146	10.3	GGX	BGX
1.5SMCJ100	1.5SMCJ100C	100	111	141	1	5	5	179	8.4	GGY	BGY
1.5SMCJ100A	1.5SMCJ100CA	100	111	128	1	5	5	162	9.3	GGZ	BGZ
1.5SMCJ110	1.5SMCJ110C	110	122	154.5	1	5	5	196	7.7	GHD	BHD
1.5SMCJ110A	1.5SMCJ110CA	110	122	140.5	1	5	5	177	8.4	GHE	BHE
1.5SMCJ120	1.5SMCJ120C	120	133	169	1	5	5	214	7	GHF	BHF
1.5SMCJ120A	1.5SMCJ120CA	120	133	153	1	5	5	193	7.9	GHG	BHG
1.5SMCJ130	1.5SMCJ130C	130	144	182.5	1	5	5	231	6.5	GHH	BHH
1.5SMCJ130A	1.5SMCJ130CA	130	144	165.5	1	5	5	209	7.2	GHK	BHK
1.5SMCJ150	1.5SMCJ150C	150	167	211.5	1	5	5	268	5.6	GHL	BHL
1.5SMCJ150A	1.5SMCJ150CA	150	167	192.5	1	5	5	243	6.2	GHM	BHM
1.5SMCJ160	1.5SMCJ160C	160	178	226	1	5	5	287	5.2	GHN	BHN
1.5SMCJ160A	1.5SMCJ160CA	160	178	205	1	5	5	259	5.8	GHP	BHP
1.5SMCJ170	1.5SMCJ170C	170	189	239.5	1	5	5	304	4.9	GHQ	BHQ
1.5SMCJ170A	1.5SMCJ170CA	170	189	217.5	1	5	5	275	5.5	GHR	BHR
1.5SMCJ180	1.5SMCJ180C	180	198	253.8	1	5	5	322	4.7	GHS	BHS
1.5SMCJ180A	1.5SMCJ180CA	180	198	230.4	1	5	5	292	5.1	GHT	BHT
1.5SMCJ190	1.5SMCJ190C	190	209	267.9	1	5	5	340	4.4	GHU	BHU
1.5SMCJ190A	1.5SMCJ190CA	190	209	243.2	1	5	5	308	4.8	GHV	BHV
1.5SMCJ200	1.5SMCJ200C	200	220	282	1	5	5	358	4.1	GHW	BHW
1.5SMCJ200A	1.5SMCJ200CA	200	220	256	1	5	5	324	4.6	GHX	BHX
1.5SMCJ210	1.5SMCJ210C	210	231	296.1	1	5	5	376	4	GHY	BHY
1.5SMCJ210A	1.5SMCJ210CA	210	231	268.8	1	5	5	340	4.4	GHZ	BHZ
1.5SMCJ220	1.5SMCJ220C	220	242	310.2	1	5	5	394	3.8	GID	BID
1.5SMCJ220A	1.5SMCJ220CA	220	242	281.6	1	5	5	356	4.2	GIE	BIE

1.5SMCJ SERIES

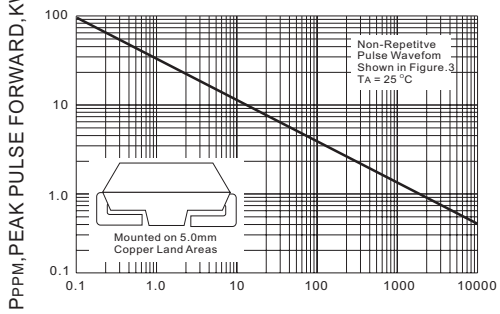


Fig.1 PEAK PULSE POWER RATING CURVE

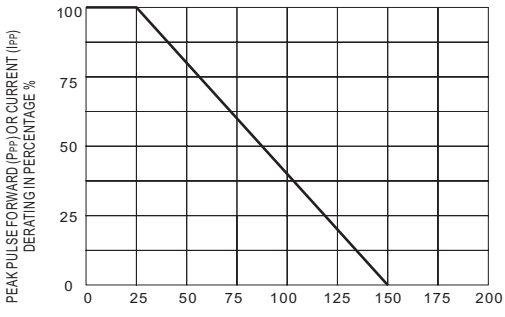


Fig.2 DERATING CURVE

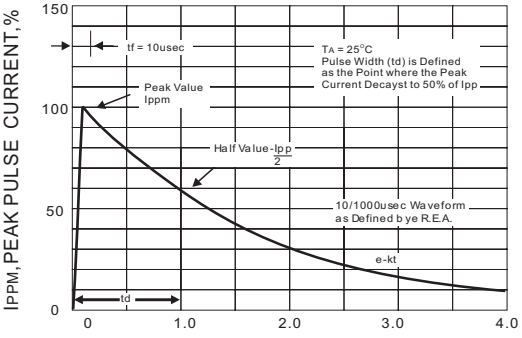


Fig.3 PULSE WAVEFORM

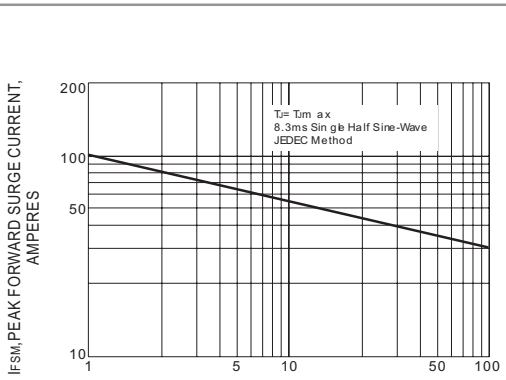


Fig.5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

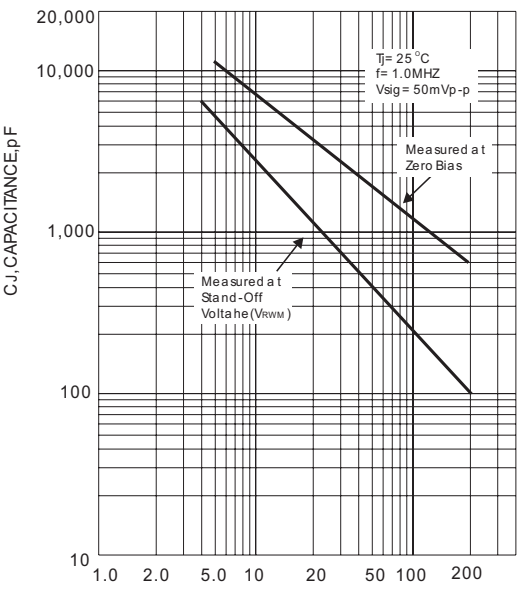


Fig.4 TYPICAL CAPACITANCE

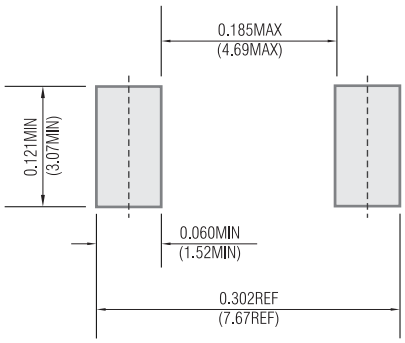
PLEASE REFER THE TVS APPLICATION NOTE IN PANJIT WEBSITE

http://www.panjit.com/protection-transient-voltage-suppressors.html

1.5SMCJ SERIES

MOUNTING PAD LAYOUT

SMC/DO-214AB Unit: inch (mm)



ORDER INFORMATION

- Packing information

  T/R - 3K per 13" plastic Reel

  T/R - 0.5Kper 7" plastic Reel

LEGAL STATEMENT

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