



1.5SMCJ5.0A-AU~1.5SMCJ70CA-AU

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR PEAK PULSE POWER 1500 Watt

STAND-OFF VOLTAGE

5 to 70 Volt

SMC / DO-214AB

Unit : inch(mm)

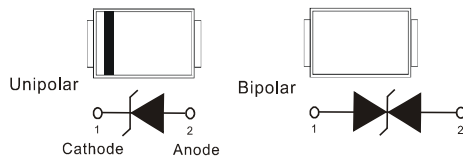
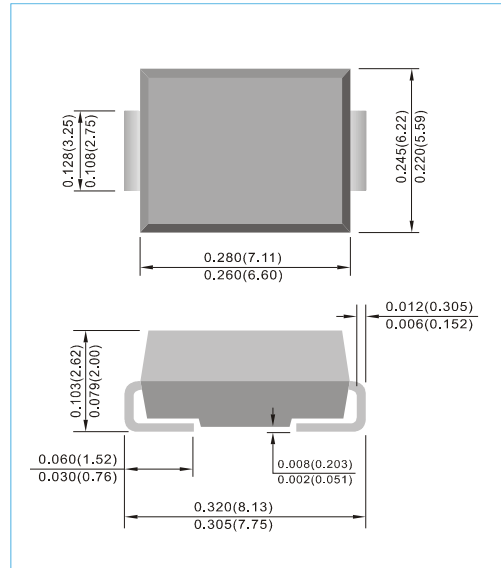
Recongized File # E210467

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- ESD IEC-61000-4-2 Air \pm 30kV, Contact \pm 30kV
- For surface mounted applications in order to optimize board space.
- Low inductance
- High temperature soldering : 260°C /10 seconds at terminals
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

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 cathode end
- Standard Packaging: 16mm tape (EIA-481)
- Weight: 0.0082 ounce, 0.2325 gram



DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types 1.5SMCJ5.0 thru types 1.5SMCJ70.
 Electrical characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

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

Rating	Symbol	Value	Units
Peak Power Dissipation at $T_A = 25^\circ\text{C}$, $t_p = 1\text{ms}$ (Notes 1)	P_{PP}	1500	W
Power Dissipation on Infinite Heat Sink at $T_L = 50^\circ\text{C}$	P_D	6.5	Watts
Peak Pulse Current on $t_p = 10/1000\mu\text{s}$ waveform (Notes 1)	I_{PPM}	See table	A
Typical Thermal Resistance Junction to Air (Notes 2)	$R_{\theta JA}$	50	$^\circ\text{C} / \text{W}$
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (Notes 3)	I_{FSM}	200	A
ESD IEC-61000-4-2 (Air) ESD IEC-61000-4-2 (Contact)	V_{ESD}	± 30 ± 30	kV
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

NOTES :

1. Non-repetitive current pulse, per Fig. 3 and derated above $T_A = 25^\circ\text{C}$ per Fig. 2.
2. Mounted on 2mm^2 (0.013mm thick) land areas.
3. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minutes maximum.
4. A transient suppressor is selected according to the working peak reverse voltage (V_{RWM}), which should be equal to or greater than the DC or continuous peak operating voltage level.



1.5SMCJ5.0A-AU~1.5SMCJ70CA-AU

Part Number		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage		Max. Clamp Voltage 10/1000µs	Peak Pulse Current 10/1000µs	Marking Code	
			V _{BR} @ I _T			I _R @ V _{RWM}					
		V _{RWM} (Notes 4)	Min.	Max.	I _T	UNI	BI	V _C @ I _{PP}	I _{PP}		
UNI	BI	V	V	V	mA	µA	µA	V	A	UNI	BI
1500W Transient Voltage Suppressor											
1.5SMCJ5.0A-AU	1.5SMCJ5.0CA-AU	5	6.4	7.25	10	1000	2000	9.2	163	GDE	BDE
1.5SMCJ6.0A-AU	1.5SMCJ6.0CA-AU	6	6.67	7.67	10	1000	2000	10.3	145.6	GDG	BDG
1.5SMCJ6.5A-AU	1.5SMCJ6.5CA-AU	6.5	7.22	8.3	10	500	1000	11.2	133.9	GDK	BDK
1.5SMCJ7.0A-AU	1.5SMCJ7.0CA-AU	7	7.78	8.95	10	200	400	12	125	GDM	BDM
1.5SMCJ7.5A-AU	1.5SMCJ7.5CA-AU	7.5	8.33	9.58	1	100	200	12.9	116.3	GDP	BDP
1.5SMCJ8.0A-AU	1.5SMCJ8.0CA-AU	8	8.89	10.23	1	50	100	13.6	110.3	GDR	BDR
1.5SMCJ8.5A-AU	1.5SMCJ8.5CA-AU	8.5	9.44	10.82	1	25	50	14.4	104.2	GDT	BDT
1.5SMCJ9.0A-AU	1.5SMCJ9.0CA-AU	9	10	11.5	1	10	20	15.4	97.4	GDV	BDV
1.5SMCJ10A-AU	1.5SMCJ10CA-AU	10	11.1	12.8	1	5	5	17	88.2	GDX	BDX
1.5SMCJ11A-AU	1.5SMCJ11CA-AU	11	12.2	14	1	1	1	18.2	82.4	GDZ	BDZ
1.5SMCJ12A-AU	1.5SMCJ12CA-AU	12	13.3	15.3	1	1	1	19.9	75.3	GEE	BEE
1.5SMCJ13A-AU	1.5SMCJ13CA-AU	13	14.4	16.5	1	1	1	21.5	69.7	GEG	BEG
1.5SMCJ14A-AU	1.5SMCJ14CA-AU	14	15.6	17.9	1	1	1	23.2	64.7	GEK	BEK
1.5SMCJ15A-AU	1.5SMCJ15CA-AU	15	16.7	19.2	1	1	1	24.4	61.5	GEM	BEM
1.5SMCJ16A-AU	1.5SMCJ16CA-AU	16	17.8	20.5	1	1	1	26	57.7	GEP	BEP
1.5SMCJ17A-AU	1.5SMCJ17CA-AU	17	18.9	21.7	1	1	1	27.6	53.3	GER	BER
1.5SMCJ18A-AU	1.5SMCJ18CA-AU	18	20	23.3	1	1	1	29.2	51.4	GET	BET
1.5SMCJ20A-AU	1.5SMCJ20CA-AU	20	22.2	25.5	1	1	1	32.4	46.3	GEV	BEV
1.5SMCJ22A-AU	1.5SMCJ22CA-AU	22	24.4	28	1	1	1	35.5	42.2	GEX	BEX
1.5SMCJ24A-AU	1.5SMCJ24CA-AU	24	26.7	30.7	1	1	1	38.9	38.6	GEZ	BEZ
1.5SMCJ26A-AU	1.5SMCJ26CA-AU	26	28.9	33.2	1	1	1	42.1	35.6	GFE	BFE
1.5SMCJ28A-AU	1.5SMCJ28CA-AU	28	31.1	35.8	1	1	1	45.4	33	GFG	BFG
1.5SMCJ30A-AU	1.5SMCJ30CA-AU	30	33.3	38.3	1	1	1	48.4	31	GFK	BFK
1.5SMCJ33A-AU	1.5SMCJ33CA-AU	33	36.7	42.2	1	1	1	53.3	28.1	GFM	BFM
1.5SMCJ36A-AU	1.5SMCJ36CA-AU	36	40	46	1	1	1	58.1	25.8	GFP	BFP
1.5SMCJ40A-AU	1.5SMCJ40CA-AU	40	44.4	51.1	1	1	1	64.5	23.2	GFR	BFR
1.5SMCJ43A-AU	1.5SMCJ43CA-AU	43	47.8	55	1	1	1	69.4	21.6	GFT	BFT
1.5SMCJ45A-AU	1.5SMCJ45CA-AU	45	50	57.5	1	1	1	72.7	20.6	GFV	BFV
1.5SMCJ48A-AU	1.5SMCJ48CA-AU	48	53.3	61.3	1	1	1	77.4	19.4	GFX	BFX
1.5SMCJ51A-AU	1.5SMCJ51CA-AU	51	56.7	65.2	1	1	1	82.4	18.2	GFZ	BFZ
1.5SMCJ54A-AU	1.5SMCJ54CA-AU	54	60	69	1	1	1	87.1	17.2	GGE	BGE
1.5SMCJ58A-AU	1.5SMCJ58CA-AU	58	64.4	74.1	1	1	1	93.6	16	GGG	BGG
1.5SMCJ60A-AU	1.5SMCJ60CA-AU	60	66.7	76.7	1	1	1	96.8	15.5	GGK	BG K
1.5SMCJ64A-AU	1.5SMCJ64CA-AU	64	71.1	81.8	1	1	1	103	14.6	GGM	BGM
1.5SMCJ70A-AU	1.5SMCJ70CA-AU	70	77.8	89.5	1	1	1	113	13.3	GGP	BGP



1.5SMCJ5.0A-AU~1.5SMCJ70CA-AU

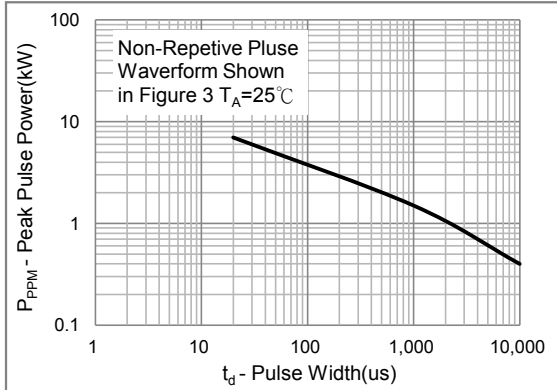


Fig.1 Peak Pulse Power Rating Curve

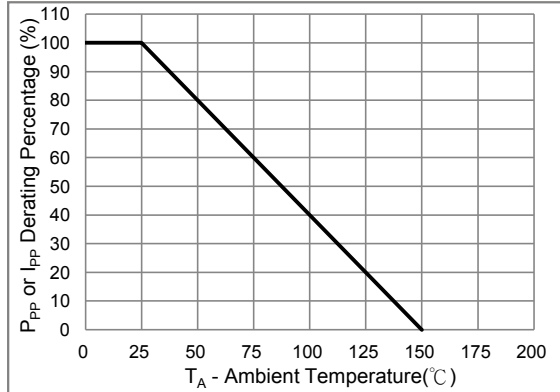


Fig.2 Derating Curve

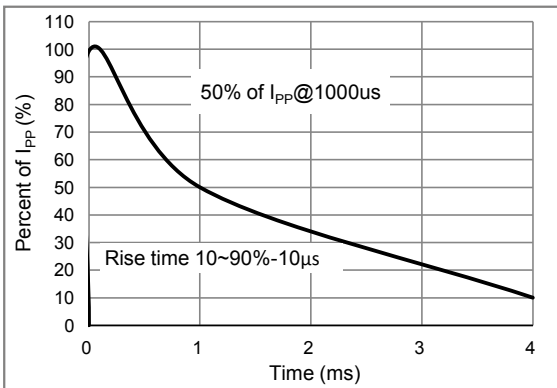


Fig.3 10/1000us Pulse Waveform

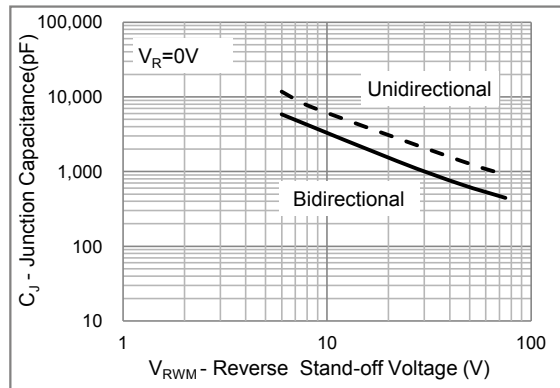
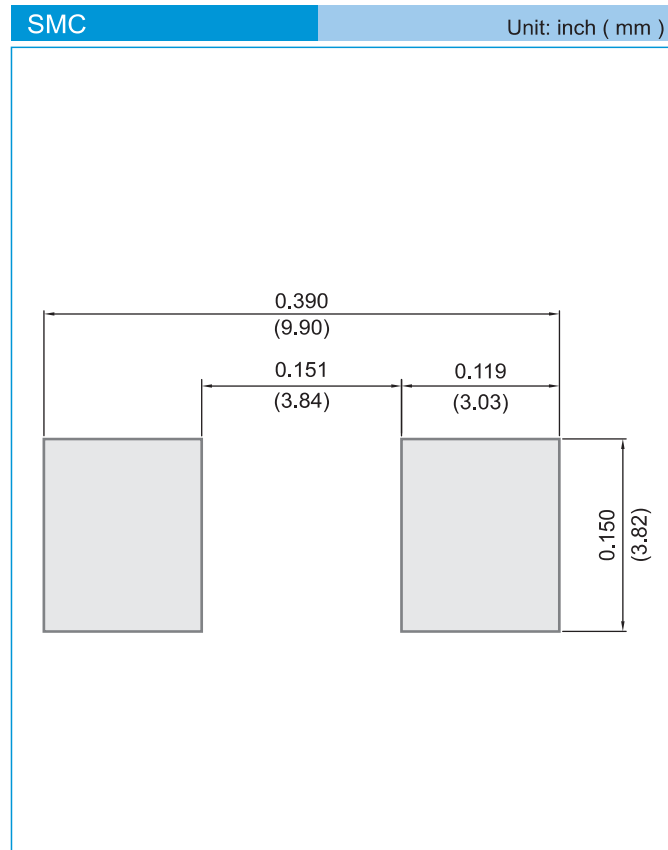


Fig.4 Typical Capacitance



1.5SMCJ5.0A-AU~1.5SMCJ70CA-AU

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 3K per 13" plastic Reel
T/R - 0.8K per 7" plastic Reel



1.5SMCJ5.0A-AU~1.5SMCJ70CA-AU

Part No._packing code_Version

1.5SMCJ5.0A-AU_R1_000A1

1.5SMCJ5.0A-AU_R2_000A1

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



1.5SMCJ5.0A-AU~1.5SMCJ70CA-AU

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.