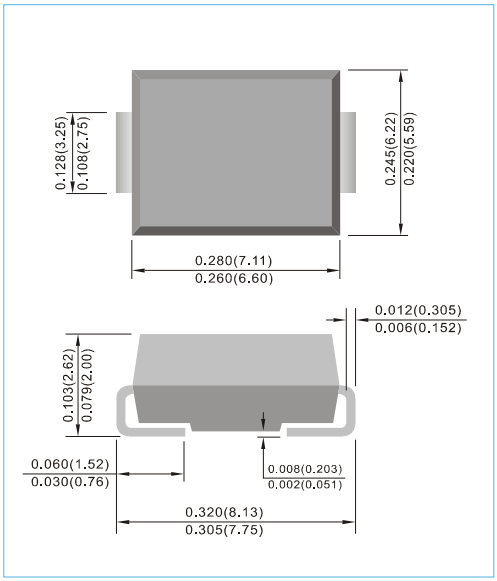
PANJIT SEMI CONDUCTOR

1.5SMC6.8A-AU ~ 1.5SMC250CA-AU Series

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR PEAK PULSE POWER 1500 Watt

BREAK DOWN VOLTAGE | **6.8 to 250 Volt**

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

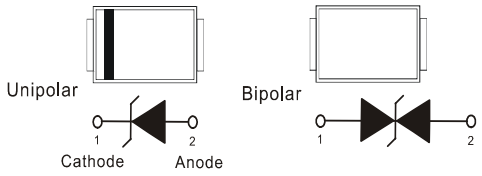


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated chip junction in SMC/DO-214AB package
- 1500W surge capability at 1ms
- Excellent clamping capability
- Low zener impedance
- Fast response time: typically less than 1 ps from 0 volts to BV min
- High temperature soldering guaranteed: 260°C/10 seconds/0.375",(9.5mm) lead length/5lbs., (2.3kg) tension
- AEC-Q101 qualified
- ESD IEC-61000-4-2 Air ± 30kV, Contact ± 30kV
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: JEDEC SMC/DO-214AB molded plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.266 grams



DEVICES FOR BIPOLARAPPLICATIONS

For Bidirectional use C or CA Suffix for types 1.5SMC6.8 thru types 1.5SMC250.
Electrical characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

Rating at 25°Ca mbient temperature unless otherwise specified.

Rating	Symbol	Value	Unit
Peak Power Dissipation at T_A=25°C, tp=1ms (Notes 1)	P_{PP}	1500	Watts
Typical Thermal Resistance Junction to Air (Notes 2)	$R_{\theta JA}$	50	°C / W
Peak Pulse Current on tp=10/1000μs waveform (Notes 1)	I_{PPM}	see Table	Amps
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (Notes 3)	I_{FSM}	200	Amps
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	°C

NOTES :

1. Non-repetitive current pulse, per Fig. 3 and derated above T_A=25°C per Fig. 2.
2. Mounted on Copper Leaf area of 0.79 in ^{2}(20mm^2).
3. 8.3ms single half sine-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.

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1.5SMC6.8A-AU ~ 1.5SMC250CA-AU Series

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_{RWM}(Notes 4)	V_{BR} @ I_T		I_T	I_R @ V_{RWM}		V_C @ I_{PP}	I_{PP}		
			Min.	Max.		UNI	BI				
UNI	BI	V	V	V	mA	μA	μA	V	A	UNI	BI
1500W Transient Voltage Suppressor											
1.5SMC6.8A-AU	1.5SMC6.8CA-AU	5.8	6.45	7.14	10	1000	2000	10.5	143	FZB	JZB
1.5SMC7.5A-AU	1.5SMC7.5CA-AU	6.4	7.13	7.88	10	500	1000	11.3	132	FZD	JZD
1.5SMC8.2A-AU	1.5SMC8.2CA-AU	7.02	7.79	8.61	10	200	400	12.1	124	FZF	JZF
1.5SMC9.1A-AU	1.5SMC9.1CA-AU	7.78	8.65	9.5	1	50	100	13.4	112	FZH	JZH
1.5SMC10A-AU	1.5SMC10CA-AU	8.55	9.5	10.5	1	10	20	14.5	103	FZK	JZK
1.5SMC11A-AU	1.5SMC11CA-AU	9.4	10.5	11.6	1	5	10	15.6	96	FZM	JZM
1.5SMC12A-AU	1.5SMC12CA-AU	10.2	11.4	12.6	1	5	5	16.7	90	FZP	JZP
1.5SMC13A-AU	1.5SMC13CA-AU	11.1	12.4	13.7	1	1	1	18.2	82	FZR	JZR
1.5SMC15A-AU	1.5SMC15CA-AU	12.8	14.3	15.8	1	1	1	21.2	71	FZT	JZT
1.5SMC16A-AU	1.5SMC16CA-AU	13.6	15.2	16.8	1	1	1	22.5	67	FZV	JZV
1.5SMC18A-AU	1.5SMC18CA-AU	15.3	17.1	18.9	1	1	1	25.2	59.5	FZX	JZX
1.5SMC20A-AU	1.5SMC20CA-AU	17.1	19	21	1	1	1	27.7	54	FZZ	JZZ
1.5SMC22A-AU	1.5SMC22CA-AU	18.8	20.9	23.1	1	1	1	30.6	49	FXB	JXB
1.5SMC24A-AU	1.5SMC24CA-AU	20.5	22.8	25.2	1	1	1	33.2	45	FXD	JXD
1.5SMC27A-AU	1.5SMC27CA-AU	23.1	25.7	28.4	1	1	1	37.5	40	FXF	JXF
1.5SMC30A-AU	1.5SMC30CA-AU	25.6	28.5	31.5	1	1	1	41.4	36	FXH	JXH
1.5SMC33A-AU	1.5SMC33CA-AU	28.2	31.4	34.7	1	1	1	45.7	33	FXK	JXK
1.5SMC36A-AU	1.5SMC36CA-AU	30.8	34.2	37.8	1	1	1	49.9	30	FXM	JXM
1.5SMC39A-AU	1.5SMC39CA-AU	33.3	37.1	41	1	1	1	53.9	28	FXP	JXP
1.5SMC43A-AU	1.5SMC43CA-AU	36.8	40.9	45.2	1	1	1	59.3	25.3	FXR	JXR
1.5SMC47A-AU	1.5SMC47CA-AU	40.2	44.7	49.4	1	1	1	64.8	23.2	FXT	JXT
1.5SMC51A-AU	1.5SMC51CA-AU	43.6	48.5	53.6	1	1	1	70.1	21.4	FXV	JXV
1.5SMC56A-AU	1.5SMC56CA-AU	47.8	53.2	58.8	1	1	1	77	19.5	FXX	JXX
1.5SMC62A-AU	1.5SMC62CA-AU	53	58.9	65.1	1	1	1	85	17.7	FXZ	JXZ
1.5SMC68A-AU	1.5SMC68CA-AU	58.1	64.6	71.4	1	1	1	92	16.3	FYB	JYB
1.5SMC75A-AU	1.5SMC75CA-AU	64.1	71.3	78.8	1	1	1	103	14.6	FYD	JYD
1.5SMC82A-AU	1.5SMC82CA-AU	70.1	77.9	86.1	1	1	1	113	13.3	FYF	JYF
1.5SMC91A-AU	1.5SMC91CA-AU	77.8	86.5	95.5	1	1	1	125	12	FYH	JYH
1.5SMC100A-AU	1.5SMC100CA-AU	85.5	95	105	1	1	1	137	11	FYK	JYK
1.5SMC110A-AU	1.5SMC110CA-AU	94	105	116	1	1	1	152	9.9	FYM	JYM
1.5SMC120A-AU	1.5SMC120CA-AU	102	114	126	1	1	1	165	9.1	FYP	JYP
1.5SMC130A-AU	1.5SMC130CA-AU	111	124	137	1	1	1	179	8.4	FYR	JYR
1.5SMC150A-AU	1.5SMC150CA-AU	128	143	158	1	1	1	207	7.2	FYT	JYT
1.5SMC160A-AU	1.5SMC160CA-AU	136	152	168	1	1	1	219	6.8	FYV	JYV
1.5SMC170A-AU	1.5SMC170CA-AU	145	162	179	1	1	1	234	6.4	FYX	JYX
1.5SMC180A-AU	1.5SMC180CA-AU	154	171	189	1	1	1	246	6.1	FYZ	JYZ
1.5SMC200A-AU	1.5SMC200CA-AU	171	190	210	1	1	1	274	5.5	FWB	JWB
1.5SMC220A-AU	1.5SMC220CA-AU	185	209	231	1	1	1	328	4.6	FWD	JWD
1.5SMC250A-AU	1.5SMC250CA-AU	214	237	263	1	1	1	344	4.5	FWF	JWF

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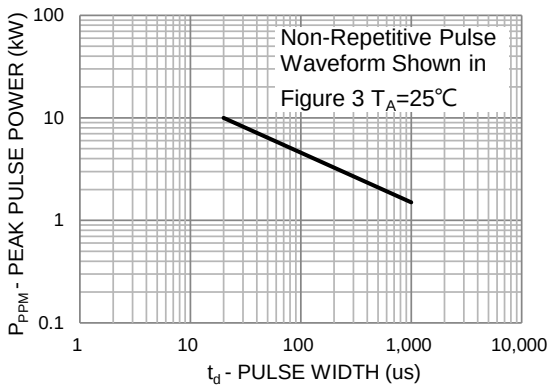


Fig.1 PEAK PULSE POWER RATING VERSUS PULSE TIME CURVE

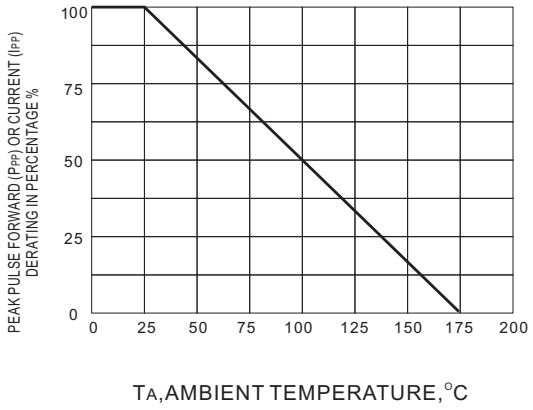


Fig.2 PULSE DERATING CURVE

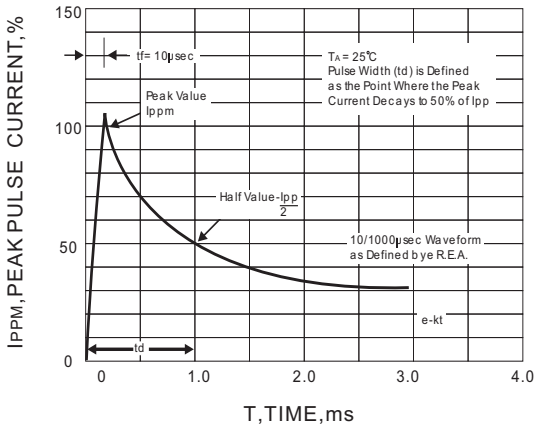


Fig.3 PULSE WAVEFORM

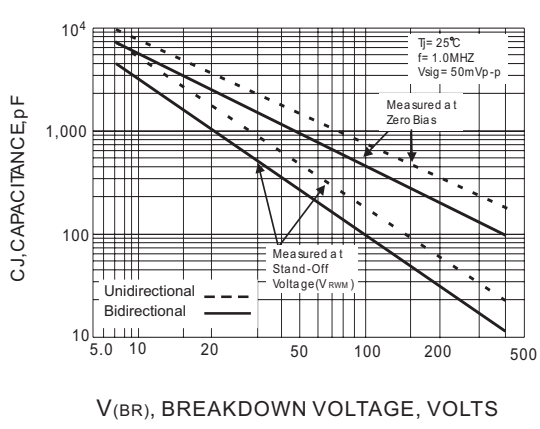


Fig.4 TYPICAL JUNCTION CAPACITANCE

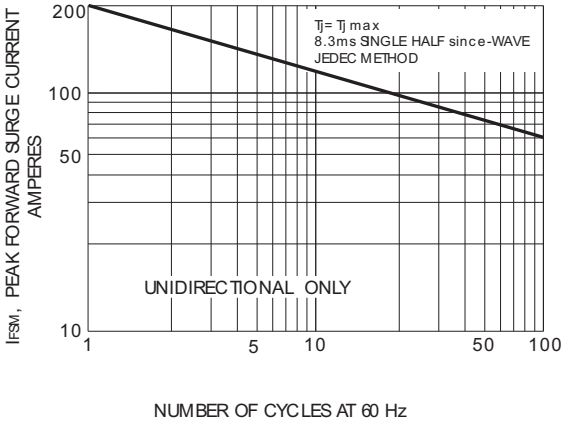


Fig.5 MAXIMUN NON-REPETITEVE PEAK FORWARD SURGE CURRENT UNIDIRECTIONAL

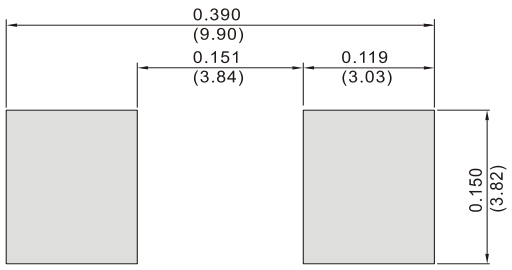
1.5SMC6.8A-AU ~ 1.5SMC250CA-AU Series

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
1.5SMCxxxA-AU	SMC	0.8K pcs / 7” reel	See Table
1.5SMCxxxCA-AU	SMC	3K pcs / 13” reel	See Table

Mounting Pad Layout

SMC Pad Layout — Unit: inch(mm)



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