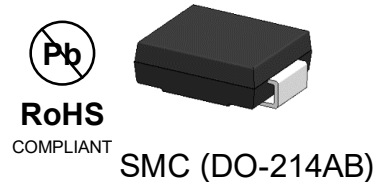


1500W, 11 - 250V Transient Voltage Suppressors

Features

- Very fast response time
- Glass passivated junction
- Moisture sensitivity: level 1, per J-STD-020
- Available in unidirectional and bidirectional
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Halogen-free according to IEC 61249-2-21 definition
- 1500 W peak pulse power capability with a 10/1000 μ s waveform



Applications

- SMPS
- Adapters
- Monitor

Absolute Maximum Ratings (TA=25°C unless otherwise noted)			
Parameter	Symbol	Ratings	Unit
Peak power dissipation with a 10/1000us waveform	P _{PPM}	1500	W
Peak pulse current with a 10/1000us waveform	I _{PPM}	See Next Table	A
Power dissipation, on infinite heat sink at T _L =75°C	P _D	5	W
Peak forward surge current, 8.3ms single half-sine wave	I _{FSM}	200	A
Typical Thermal Resistance , Junction to Ambient	R _{θJA}	65	°C/W
Typical Thermal Resistance , Junction to Case	R _{θJC}	10	°C/W
Typical Thermal Resistance , Junction to Lead	R _{θJL}	15	°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Note:

1. The thermal resistance from junction to ambient, case or lead, mounted on P.C.B with 8×8mm copper pads

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Marking		Breakdown Voltage VBR (Volts)		Test Current I _r (mA)	Stand off Voltage V _{WM} (Volts)	Maximum reverse leakage at V _{WM} I _D (μA)	Maximum Peak Pulse Current I _{ppM} (A)	Maximum Clamping Voltage at I _{ppM} V _c (Volts)
		UNI	BI	Min	Max					
1.5SMC12A	1.5SMC12CA	12A	12C	11.4	12.6	1.0	10.2	5.0	89.8	16.7
1.5SMC13A	1.5SMC13CA	13A	13C	12.4	13.7	1.0	11.1	5.0	82.4	18.2
1.5SMC15A	1.5SMC15CA	15A	15C	14.3	15.8	1.0	12.8	1.0	70.8	21.2
1.5SMC16A	1.5SMC16CA	16A	16C	15.2	16.8	1.0	13.6	1.0	66.7	22.5
1.5SMC18A	1.5SMC18CA	18A	18C	17.1	18.9	1.0	15.3	1.0	59.5	25.2
1.5SMC20A	1.5SMC20CA	20A	20C	19.0	21.0	1.0	17.1	1.0	54.2	27.7
1.5SMC22A	1.5SMC22CA	22A	22C	20.9	23.1	1.0	18.8	1.0	49.0	30.6
1.5SMC24A	1.5SMC24CA	24A	24C	22.8	25.2	1.0	20.5	1.0	45.2	33.2
1.5SMC27A	1.5SMC27CA	27A	27C	25.7	28.4	1.0	23.1	1.0	40.0	37.5
1.5SMC30A	1.5SMC30CA	30A	30C	28.5	31.5	1.0	25.6	1.0	36.2	41.4
1.5SMC33A	1.5SMC33CA	33A	33C	31.4	34.7	1.0	28.2	1.0	32.8	45.7
1.5SMC36A	1.5SMC36CA	36A	36C	34.2	37.8	1.0	30.8	1.0	30.1	49.9
1.5SMC39A	1.5SMC39CA	39A	39C	37.1	41.0	1.0	33.3	1.0	27.8	53.9
1.5SMC43A	1.5SMC43CA	43A	43C	40.9	45.2	1.0	36.8	1.0	25.3	59.3
1.5SMC47A	1.5SMC47CA	47A	47C	44.7	49.4	1.0	40.2	1.0	23.1	64.8
1.5SMC51A	1.5SMC51CA	51A	51C	48.5	53.6	1.0	43.6	1.0	21.4	70.1
1.5SMC56A	1.5SMC56CA	56A	56C	53.2	58.8	1.0	47.8	1.0	19.5	77.0
1.5SMC62A	1.5SMC62CA	62A	62C	58.9	65.1	1.0	53.0	1.0	17.6	85.0
1.5SMC68A	1.5SMC68CA	68A	68C	64.6	71.4	1.0	58.1	1.0	16.3	92.0
1.5SMC75A	1.5SMC75CA	75A	75C	71.3	78.8	1.0	64.1	1.0	14.6	103
1.5SMC82A	1.5SMC82CA	82A	82C	77.9	86.1	1.0	70.1	1.0	13.3	113
1.5SMC91A	1.5SMC91CA	91A	91C	86.5	95.5	1.0	77.8	1.0	12.0	125
1.5SMC100A	1.5SMC100CA	100A	100C	95	105	1.0	85.5	1.0	10.9	137
1.5SMC110A	1.5SMC110CA	110A	110C	105	116	1.0	94.0	1.0	9.9	152
1.5SMC120A	1.5SMC120CA	120A	120C	114	126	1.0	102	1.0	9.1	165
1.5SMC130A	1.5SMC130CA	130A	130C	124	137	1.0	111	1.0	8.4	179
1.5SMC150A	1.5SMC150CA	150A	150C	143	158	1.0	128	1.0	7.2	207
1.5SMC160A	1.5SMC160CA	160A	160C	152	168	1.0	136	1.0	6.8	219
1.5SMC170A	1.5SMC170CA	170A	170C	162	179	1.0	145	1.0	6.4	234
1.5SMC180A	1.5SMC180CA	180A	180C	171	189	1.0	154	1.0	6.1	246
1.5SMC200A	1.5SMC200CA	200A	200C	190	210	1.0	171	1.0	5.5	274
1.5SMC220A	1.5SMC220CA	220A	220C	209	231	1.0	185	1.0	4.6	328
1.5SMC250A	1.5SMC250CA	250A	250C	237	263	1.0	214	1.0	4.4	344

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

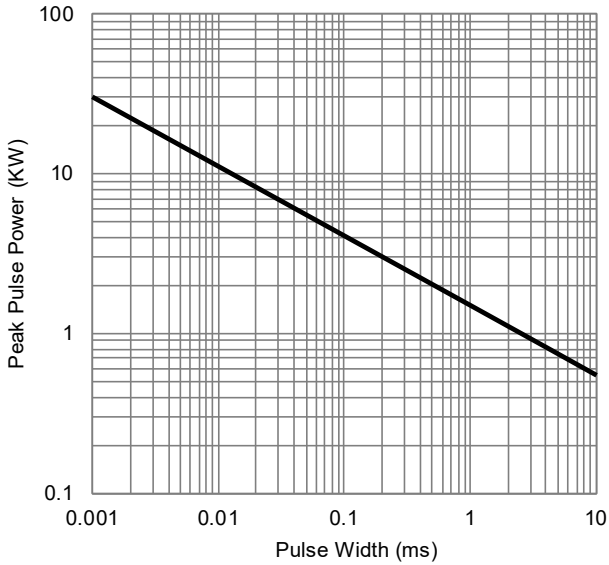


Fig.1 - Peak Pulse Power Derating Curve

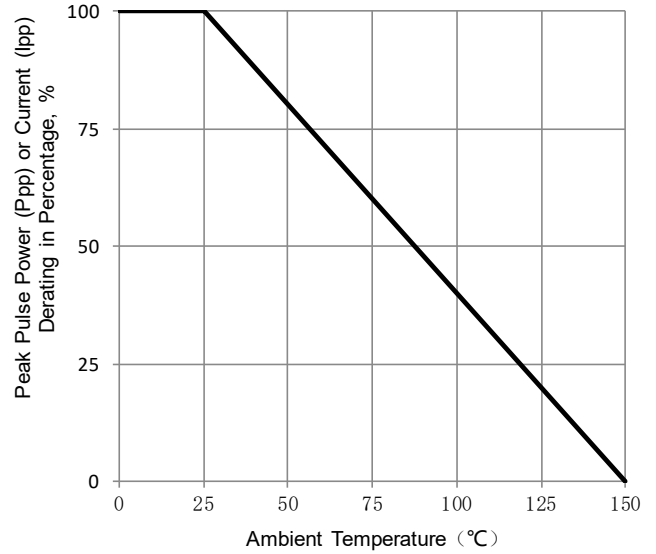


Fig.2 - Maximum Non-Repetitive Surge Current

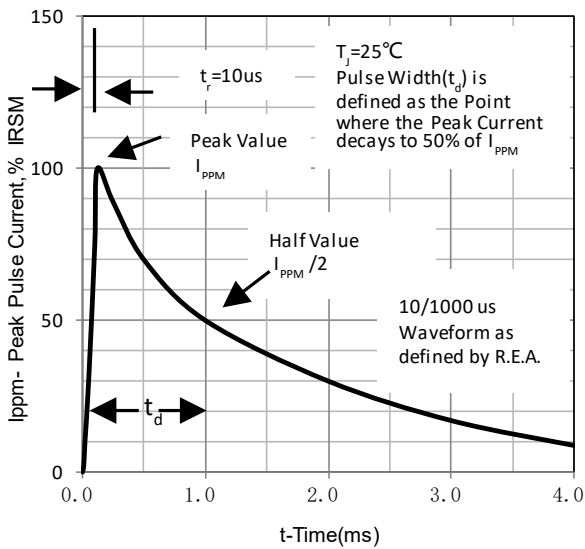


Fig.3 - Typical Forward Voltage Characteristics

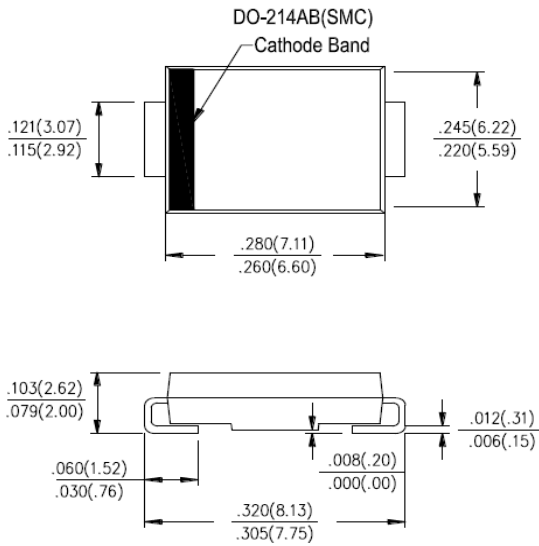


Fig.4 - Typical Reverse Current Characteristics

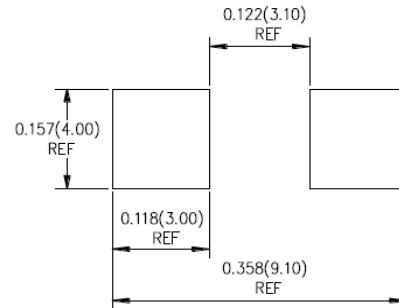
Package Outline Dimensions

in inches (millimeters)

SMC (DO-214AB)



Mounting Pad Layout



Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.15	Released Datasheet
Rev.B	2023.10.23	Modify document format
Rev.C	2023.12.18	Update product range



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