

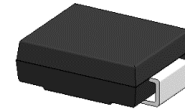
1500W, 11 - 39V Transient Voltage Suppressors

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
- AEC-Q101 qualified



RoHS
COMPLIANT



SMC (DO-214AB)

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

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

Part Number (Uni)	Part Number (Bi)	Marking		Breakdown Voltage VBR (Volts)		Test Current I _T (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					
A1.5SMC11A	A1.5SMC11CA	A11A	A11C	10.5	11.6	1.0	9.40	5.0	96.2	15.6
A1.5SMC12A	A1.5SMC12CA	A12A	A12C	11.4	12.6	1.0	10.2	5.0	89.8	16.7
A1.5SMC13A	A1.5SMC13CA	A13A	A13C	12.4	13.7	1.0	11.1	5.0	82.4	18.2
A1.5SMC15A	A1.5SMC15CA	A15A	A15C	14.3	15.8	1.0	12.8	1.0	70.8	21.2
A1.5SMC16A	A1.5SMC16CA	A16A	A16C	15.2	16.8	1.0	13.6	1.0	66.7	22.5
A1.5SMC18A	A1.5SMC18CA	A18A	A18C	17.1	18.9	1.0	15.3	1.0	59.5	25.2
A1.5SMC20A	A1.5SMC20CA	A20A	A20C	19.0	21.0	1.0	17.1	1.0	54.2	27.7
A1.5SMC22A	A1.5SMC22CA	A22A	A22C	20.9	23.1	1.0	18.8	1.0	49.0	30.6
A1.5SMC24A	A1.5SMC24CA	A24A	A24C	22.8	25.2	1.0	20.5	1.0	45.2	33.2
A1.5SMC27A	A1.5SMC27CA	A27A	A27C	25.7	28.4	1.0	23.1	1.0	40.0	37.5
A1.5SMC30A	A1.5SMC30CA	A30A	A30C	28.5	31.5	1.0	25.6	1.0	36.2	41.4
A1.5SMC33A	A1.5SMC33CA	A33A	A33C	31.4	34.7	1.0	28.2	1.0	32.8	45.7
A1.5SMC36A	A1.5SMC36CA	A36A	A36C	34.2	37.8	1.0	30.8	1.0	30.1	49.9
A1.5SMC39A	A1.5SMC39CA	A39A	A39C	37.1	41.0	1.0	33.3	1.0	27.8	53.9

Note:

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

Ratings and Characteristics Curves

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

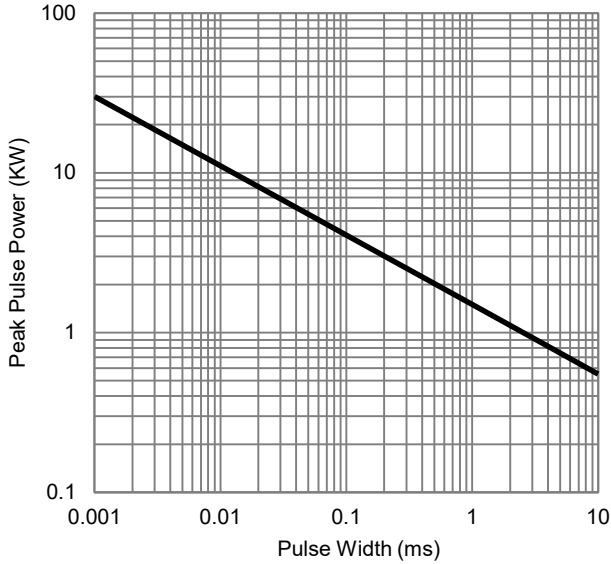


Fig.1 - Peak Pulse Power Derating Curve

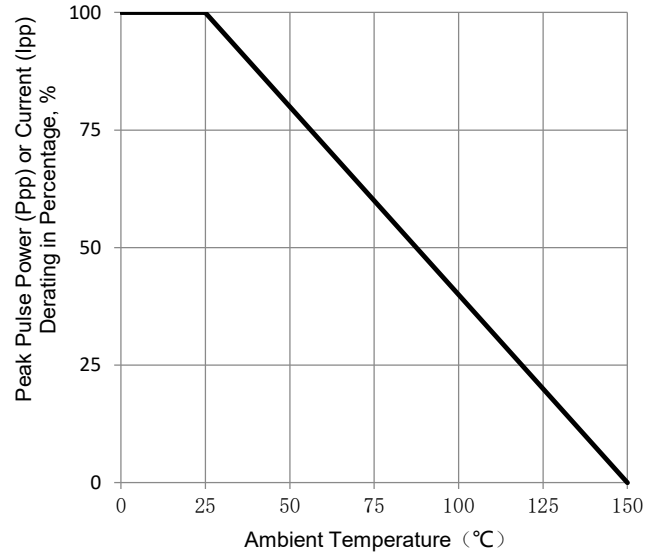


Fig.2 - Maximum Non-Repetitive Surge Current

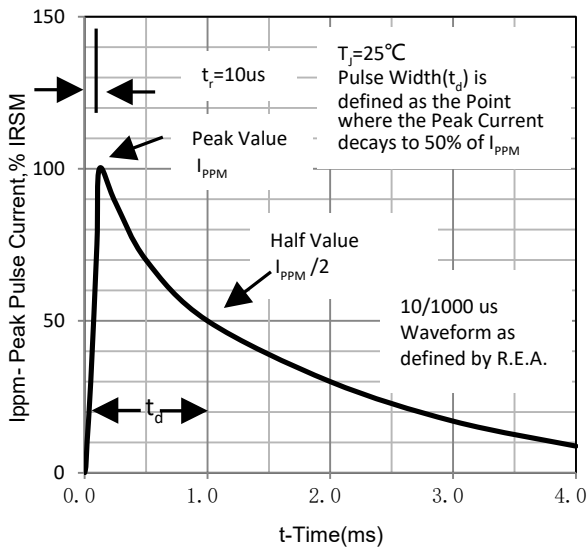


Fig.3 - Typical Forward Voltage Characteristics

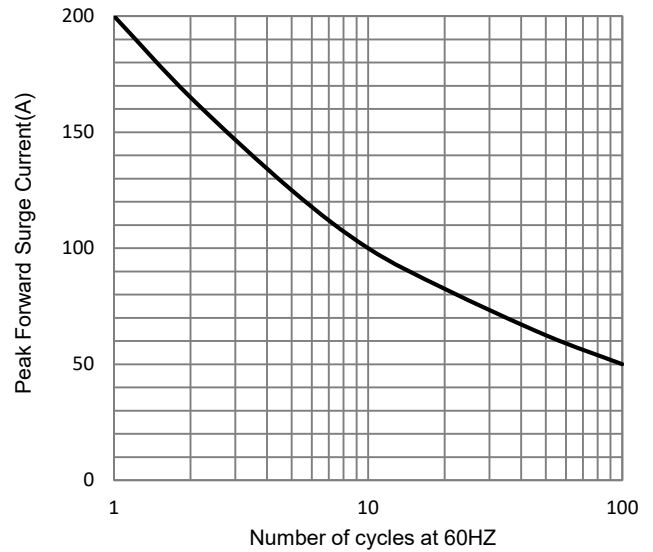
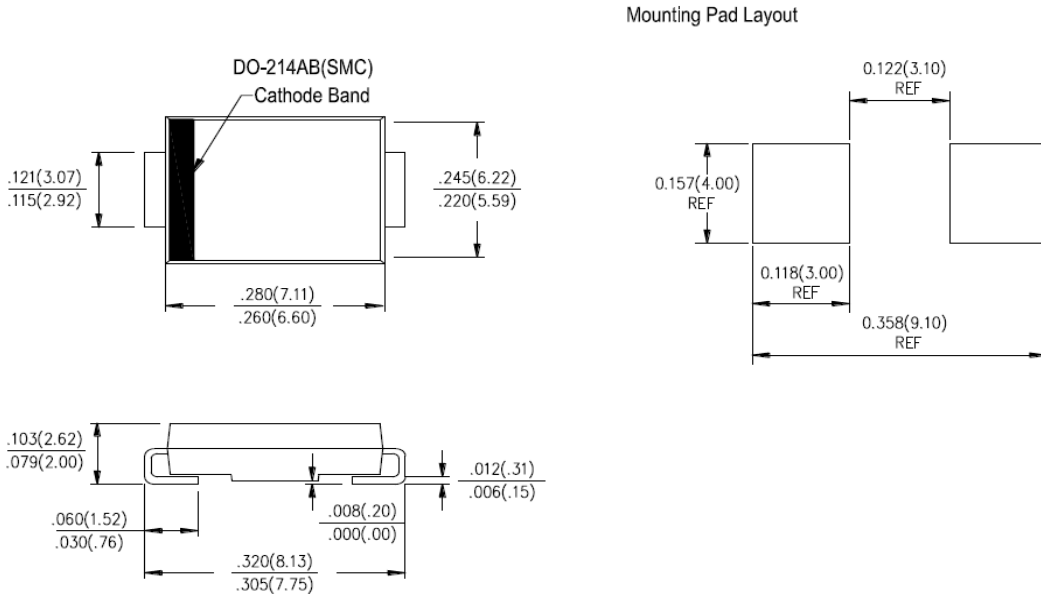


Fig.4 - Typical Reverse Current Characteristics

Package Outline Dimensions

in inches (millimeters)

SMC (DO-214AB)



Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.15	Released Datasheet
Rev.B	2023.10.24	Modify document format



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