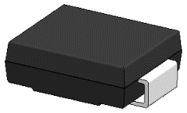
1500W,5 - 440V Transient Voltage Suppressors

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
- 1500W peak pulse power capability with a 10/1000 μs waveform
- AEC-Q101 qualified

RoHS COMPLIANT



SMC (DO-214AB)

Applications

- SMPS
- Adapters
- Monitor

Absolute Maximum Ratings (T_A=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℃	P_D	5	W
Peak forward surge current, 8.3ms single half-sine wave	I_{FSM}	200	A
Typical Thermal Resistance , Junction to Ambient	$R_{\theta JA}$	65	℃/W
Typical Thermal Resistance , Junction to Case	$R_{\theta JC}$	10	℃/W
Typical Thermal Resistance , Junction to Lead	$R_{\theta JL}$	15	℃/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	℃

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 VWM I_D (μA)	Maximum Peak Pulse Current I_{ppM} (A)	Maximum Clamping Voltage at I_{PPM} V_C(Volts)
		UNI	BI	Min	Max					
ASMCJ11A	ASMCJ11CA	AGDZ	ABDZ	12.2	13.5	1.0	11	5.0	82.4	18.2
ASMCJ12A	ASMCJ12CA	AGEE	ABEE	13.3	14.7	1.0	12	5.0	75.4	19.9
ASMCJ13A	ASMCJ13CA	AGEG	ABEG	14.4	15.9	1.0	13	1.0	69.8	21.5
ASMCJ14A	ASMCJ14CA	AGEK	ABEK	15.6	17.2	1.0	14	1.0	64.7	23.2
ASMCJ15A	ASMCJ15CA	AGEM	ABEM	16.7	18.5	1.0	15	1.0	61.5	24.4
ASMCJ16A	ASMCJ16CA	AGEP	ABEP	17.8	19.7	1.0	16	1.0	57.7	26.0
ASMCJ17A	ASMCJ17CA	AGER	ABER	18.9	20.9	1.0	17	1.0	54.3	27.6
ASMCJ18A	ASMCJ18CA	AGET	ABET	20.0	22.1	1.0	18	1.0	51.4	29.2
ASMCJ20A	ASMCJ20CA	AGEV	ABEV	22.2	24.5	1.0	20	1.0	46.3	32.4
ASMCJ22A	ASMCJ22CA	AGEX	ABEX	24.4	26.9	1.0	22	1.0	42.3	35.5
ASMCJ24A	ASMCJ24CA	AGEZ	ABEZ	26.7	29.5	1.0	24	1.0	38.6	38.9
ASMCJ26A	ASMCJ26CA	AGFE	ABFE	28.9	31.9	1.0	26	1.0	35.6	42.1
ASMCJ28A	ASMCJ28CA	AGFG	ABFG	31.1	34.4	1.0	28	1.0	33.0	45.4
ASMCJ30A	ASMCJ30CA	AGFK	ABFK	33.3	36.8	1.0	30	1.0	31.0	48.4
ASMCJ33A	ASMCJ33CA	AGFM	ABFM	36.7	40.6	1.0	33	1.0	28.1	53.3
ASMCJ36A	ASMCJ36CA	AGFP	ABFP	40.0	44.4	1.0	36	1.0	25.8	58.1
ASMCJ40A	ASMCJ40CA	AGFR	ABFR	44.4	49.1	1.0	40	1.0	23.3	64.5
ASMCJ43A	ASMCJ43CA	AGFT	ABFT	47.8	52.8	1.0	43	1.0	21.6	69.4
ASMCJ45A	ASMCJ45CA	AGFV	ABFV	50.0	55.3	1.0	45	1.0	20.6	72.7
ASMCJ48A	ASMCJ48CA	AGFX	ABFX	53.3	58.9	1.0	48	1.0	19.4	77.4
ASMCJ51A	ASMCJ51CA	AGFZ	ABFZ	56.7	62.7	1.0	51	1.0	18.2	82.4
ASMCJ54A	ASMCJ54CA	AGGE	ABGE	60.0	66.3	1.0	54	1.0	17.2	87.1
ASMCJ58A	ASMCJ58CA	AGGG	ABGG	64.4	71.2	1.0	58	1.0	16.0	93.6
ASMCJ60A	ASMCJ60CA	AGGK	ABGK	66.7	73.7	1.0	60	1.0	15.5	96.8
ASMCJ64A	ASMCJ64CA	AGGM	ABGM	71.1	78.6	1.0	64	1.0	14.6	103
ASMCJ70A	ASMCJ70CA	AGGP	ABGP	77.8	86.0	1.0	70	1.0	13.3	113
ASMCJ75A	ASMCJ75CA	AGGR	ABGR	83.3	92.1	1.0	75	1.0	12.4	121
ASMCJ78A	ASMCJ78CA	AGGT	ABGT	86.7	95.8	1.0	78	1.0	11.9	126
ASMCJ85A	ASMCJ85CA	AGGV	ABGV	94.4	104	1.0	85	1.0	10.9	137
ASMCJ90A	ASMCJ90CA	AGGX	ABGX	100	111	1.0	90	1.0	10.3	146
ASMCJ100A	ASMCJ100CA	AGGZ	ABGZ	111	123	1.0	100	1.0	9.3	162
ASMCJ110A	ASMCJ110CA	AGHE	ABHE	122	135	1.0	110	1.0	8.5	177

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

(TA = 25℃ unless otherwise noted)

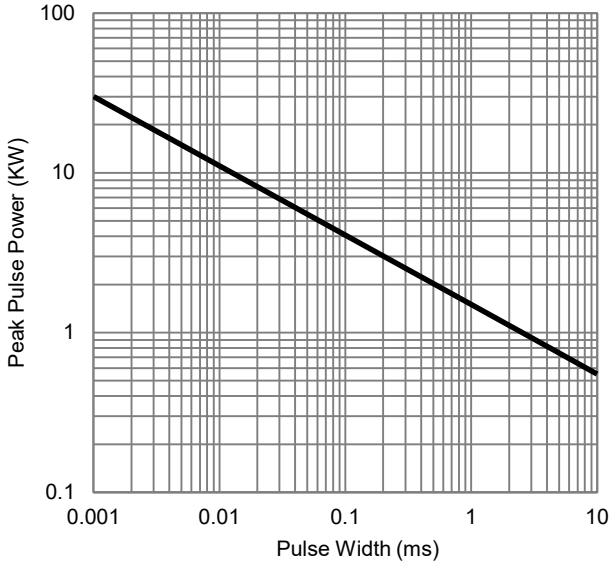


Fig.1 –Peak Pulse Power Derating Curve

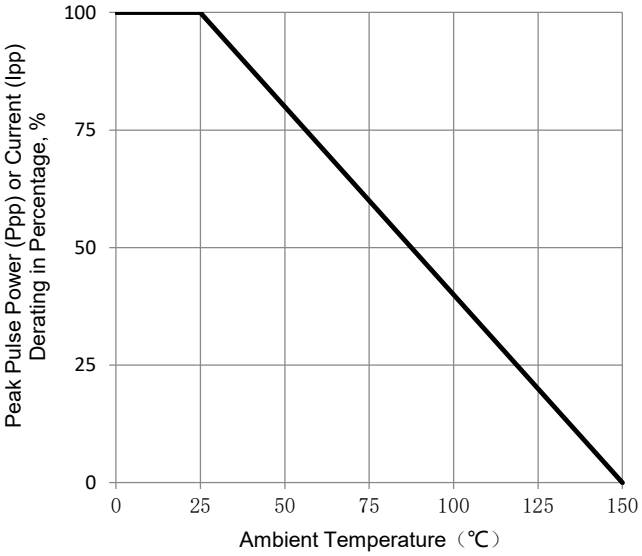


Fig.2 – Pulse Power vs Ambient Temperature

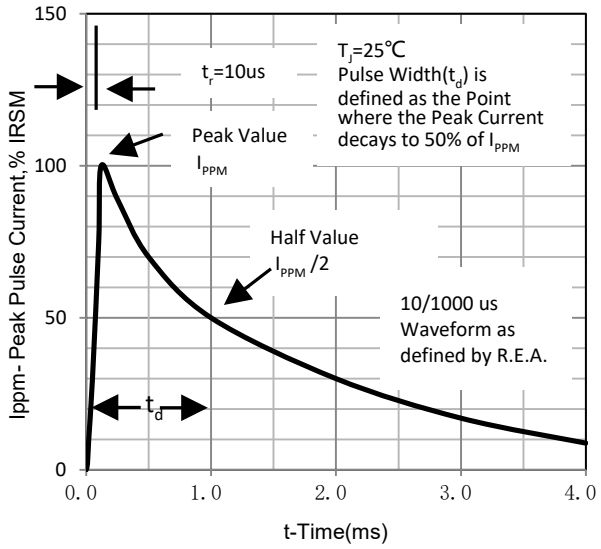


Fig.3 – Pulse Waveform

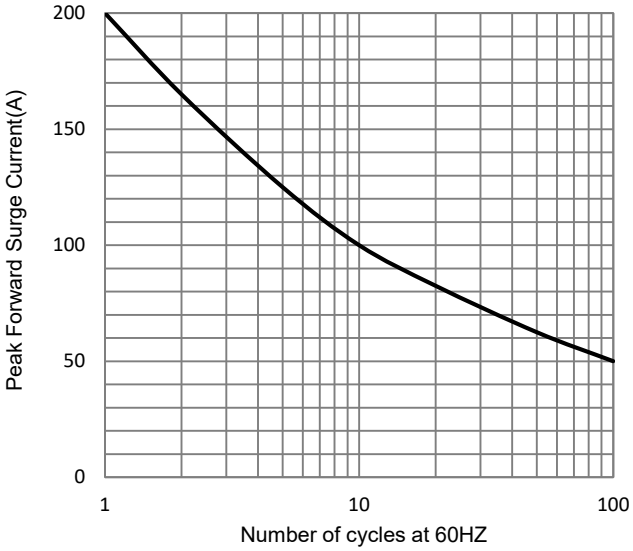
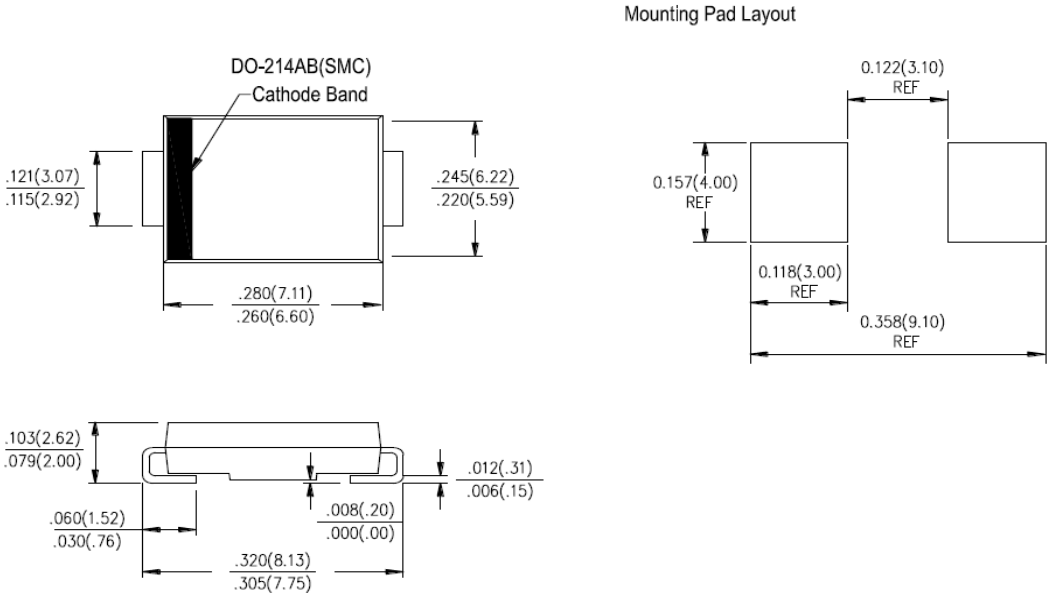


Fig.4 – Maximum Non-Repetitive Surge Current

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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