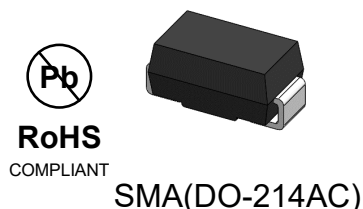


400W, 7 - 220V Transient Voltage Suppressors

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
- 400 W peak pulse power capability with a 10/1000 μ s waveform
- AEC-Q101 qualified



Applications

- SMPS
- Adapters
- Monitor

Absolute Maximum Ratings (TA=25°C unless otherwise noted)

Parameter	Symbol	Ratings	Unit
Peak power dissipation with a 10/1000 μ s waveform	P _{PPM}	400	W
Peak pulse current with a 10/1000 μ s waveform	I _{PPM}	See Next Table	A
Power dissipation, on infinite heat sink at T _L =75°C	P _D	3	W
Peak forward surge current, 8.3ms single half-sine wave	I _{FSM}	40	A
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Thermal-Mechanical Specifications (TA=25°C unless otherwise noted)

Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	R _{thJA}	90	°C /W
Thermal Resistance, Junction to Case	R _{thJC}	20	°C /W
Thermal Resistance, Junction to Lead	R _{thJL}	25	°C /W

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

Part Number (Uni)	Part Number (Bi)	Marking		Breakdown Voltage VBR (V)		Test Current I _T (mA)	Stand off Voltage V _{WM} (V)	Maximum reverse leakage at V _{WM} I _D (μA)	Maximum Peak Pulse Current I _{ppM} (A)	Maximum Clamping Voltage at I _{ppM} V _C (V)
		UNI	BI							
				Min	Max					
ASMAJ7.0A	ASMAJ7.0CA	AAM	AWM	7.78	8.60	10	7.0	200	33.3	12.0
ASMAJ7.5A	ASMAJ7.5CA	AAP	AWP	8.33	9.21	1.0	7.5	100	31.0	12.9
ASMAJ8.0A	ASMAJ8.0CA	AAR	AWR	8.89	9.83	1.0	8.0	50	29.4	13.6
ASMAJ8.5A	ASMAJ8.5CA	AAT	AWT	9.44	10.4	1.0	8.5	10	27.8	14.4
ASMAJ9.0A	ASMAJ9.0CA	AAV	AWV	10.0	11.1	1.0	9.0	5.0	26.0	15.4
ASMAJ10A	ASMAJ10CA	AAX	AWX	11.1	12.3	1.0	10	1.0	23.5	17.0
ASMAJ11A	ASMAJ11CA	AAZ	AWZ	12.2	13.5	1.0	11	1.0	22.0	18.2
ASMAJ12A	ASMAJ12CA	ABE	AXE	13.3	14.7	1.0	12	1.0	20.1	19.9
ASMAJ13A	ASMAJ13CA	ABG	AXG	14.4	15.9	1.0	13	1.0	18.6	21.5
ASMAJ14A	ASMAJ14CA	ABK	AXK	15.6	17.2	1.0	14	1.0	17.2	23.2
ASMAJ15A	ASMAJ15CA	ABM	AXM	16.7	18.5	1.0	15	1.0	16.4	24.4
ASMAJ16A	ASMAJ16CA	ABP	AXP	17.8	19.7	1.0	16	1.0	15.4	26.0
ASMAJ17A	ASMAJ17CA	ABR	AXR	18.9	20.9	1.0	17	1.0	14.5	27.6
ASMAJ18A	ASMAJ18CA	ABT	AXT	20.0	22.1	1.0	18	1.0	13.7	29.2
ASMAJ20A	ASMAJ20CA	ABV	AXV	22.2	24.5	1.0	20	1.0	12.3	32.4
ASMAJ22A	ASMAJ22CA	ABX	AXX	24.4	26.9	1.0	22	1.0	11.3	35.5
ASMAJ24A	ASMAJ24CA	ABZ	AXZ	26.7	29.5	1.0	24	1.0	10.3	38.9
ASMAJ26A	ASMAJ26CA	ACE	AYE	28.9	31.9	1.0	26	1.0	9.5	42.1
ASMAJ28A	ASMAJ28CA	ACG	AYG	31.1	34.4	1.0	28	1.0	8.8	45.4
ASMAJ30A	ASMAJ30CA	ACK	AYK	33.3	36.8	1.0	30	1.0	8.3	48.4
ASMAJ33A	ASMAJ33CA	ACM	AYM	36.7	40.6	1.0	33	1.0	7.5	53.3
ASMAJ36A	ASMAJ36CA	ACP	AYP	40.0	44.4	1.0	36	1.0	6.9	58.1
ASMAJ40A	ASMAJ40CA	ACR	AYR	44.4	49.1	1.0	40	1.0	6.2	64.5
ASMAJ43A	ASMAJ43CA	ACT	AYT	47.8	52.8	1.0	43	1.0	5.8	69.4
ASMAJ45A	ASMAJ45CA	ACV	AYV	50.0	55.3	1.0	45	1.0	5.5	72.7
ASMAJ48A	ASMAJ48CA	ACX	AYX	53.3	58.9	1.0	48	1.0	5.2	77.4
ASMAJ51A	ASMAJ51CA	ACZ	AYZ	56.7	62.7	1.0	51	1.0	4.9	82.4
ASMAJ54A	ASMAJ54CA	ARE	AZE	60.0	66.3	1.0	54	1.0	4.6	87.1
ASMAJ58A	ASMAJ58CA	ARG	AZG	64.4	71.2	1.0	58	1.0	4.3	93.6
ASMAJ60A	ASMAJ60CA	ARK	AZK	66.7	73.7	1.0	60	1.0	4.1	96.8
ASMAJ64A	ASMAJ64CA	ARM	AZM	71.1	78.6	1.0	64	1.0	3.9	103
ASMAJ70A	ASMAJ70CA	ARP	AZP	77.8	86.0	1.0	70	1.0	3.5	113
ASMAJ75A	ASMAJ75CA	ARR	AZR	83.3	92.1	1.0	75	1.0	3.3	121
ASMAJ78A	ASMAJ78CA	ART	AZT	86.7	95.8	1.0	78	1.0	3.2	126

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

Part Number (Uni)	Part Number (Bi)	Marking		Breakdown Voltage VBR (V)		Test Current I _T (mA)	Stand off Voltage V _{WM} (V)	Maximum reverse leakage at V _{WM} I _D (μA)	Maximum Peak Pulse Current I _{ppM} (A)	Maximum Clamping Voltage at I _{ppM} V _C (V)
		UNI	BI							
				Min	Max					
ASMAJ85A	ASMAJ85CA	ARV	AZV	94.4	104	1.0	85	1.0	2.9	137
ASMAJ90A	ASMAJ90CA	ARX	AZX	100	111	1.0	90	1.0	2.7	146
ASMAJ100A	ASMAJ100CA	ARZ	AZZ	111	123	1.0	100	1.0	2.5	162
ASMAJ110A	ASMAJ110CA	ASE	AVE	122	135	1.0	110	1.0	2.3	177
ASMAJ120A	ASMAJ120CA	ASG	AVG	133	147	1.0	120	1.0	2.1	193
ASMAJ130A	ASMAJ130CA	ASK	AVK	144	159	1.0	130	1.0	1.9	209
ASMAJ150A	ASMAJ150CA	ASM	AVM	167	185	1.0	150	1.0	1.6	243
ASMAJ160A	ASMAJ160CA	ASP	AVP	178	197	1.0	160	1.0	1.5	259
ASMAJ170A	ASMAJ170CA	ASR	AVR	189	209	1.0	170	1.0	1.5	275
ASMAJ180A	ASMAJ180CA	AST	AVT	201	222	1.0	180	1.0	1.4	292
ASMAJ200A	ASMAJ200CA	ASV	AVV	224	247	1.0	200	1.0	1.2	324
ASMAJ220A	ASMAJ220CA	ASX	AVX	246	272	1.0	220	1.0	1.1	356

Note:

1. Mounted on copper pad area of 0.2x0.2" (5.0 x 5.0mm) to each terminal.

Ratings and Characteristics Curves (T_A = 25°C unless otherwise noted)

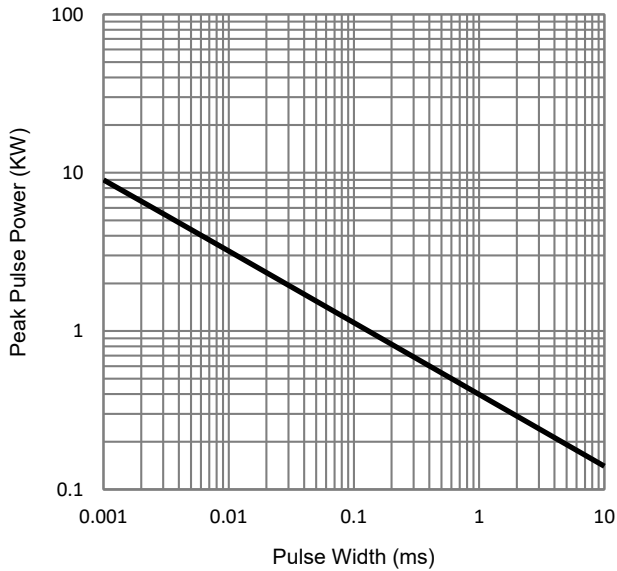


Fig.1 – Peak Pulse Power Derating Curve

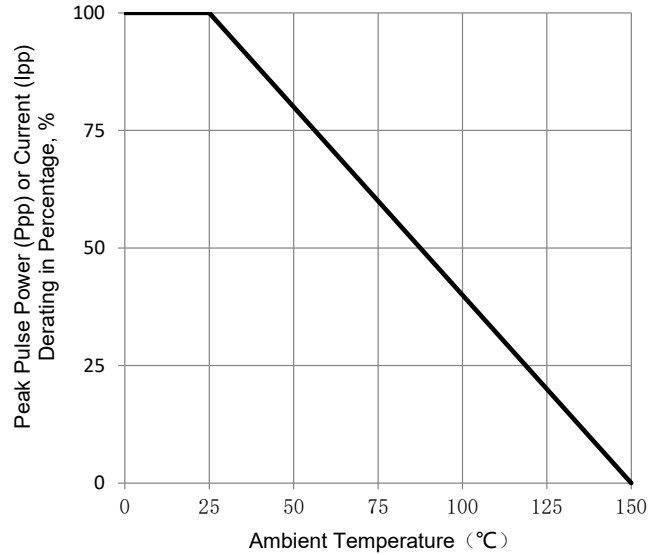


Fig.2 – Pulse Power vs Ambient Temperature

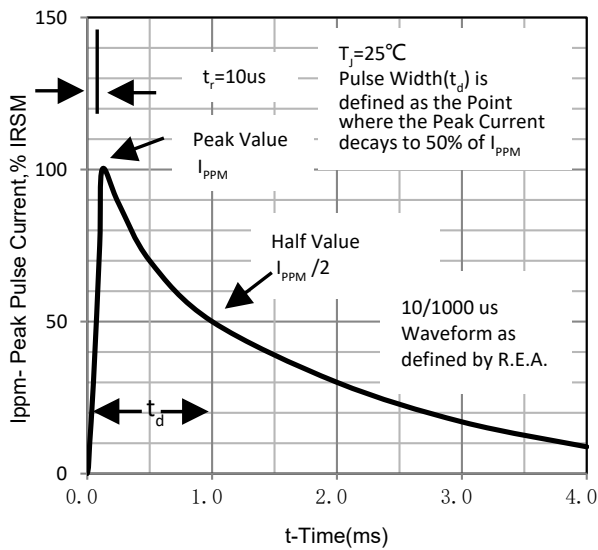


Fig.3 – Pulse Waveform

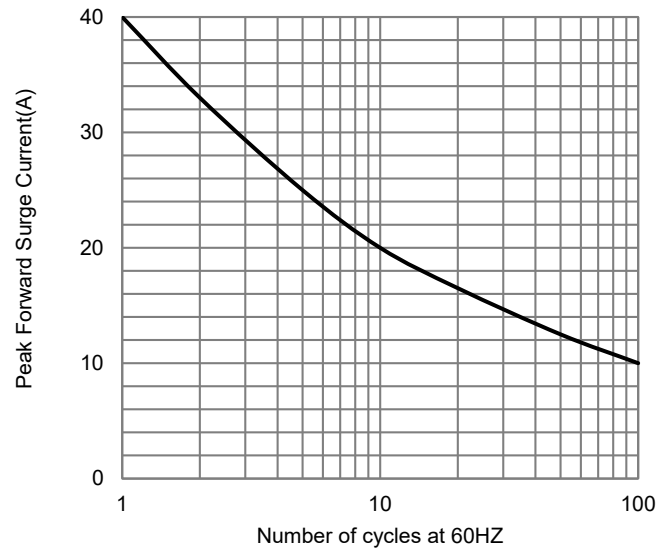
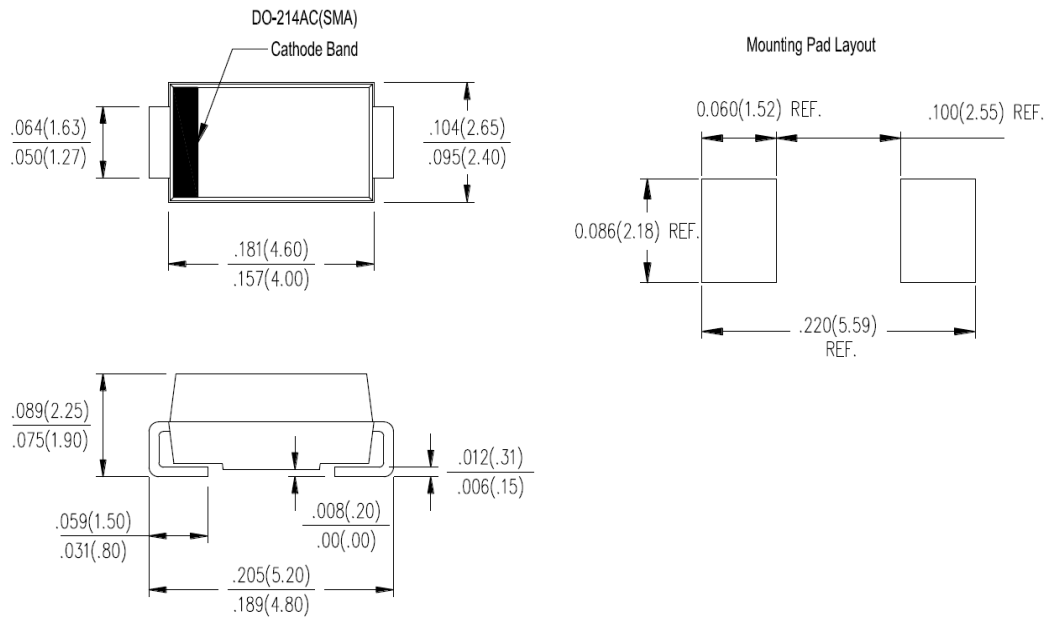


Fig.4 – Maximum Non-Repetitive Surge Current

Package Outline Dimensions

in inches (millimeters)

SMA (DO-214AC)



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