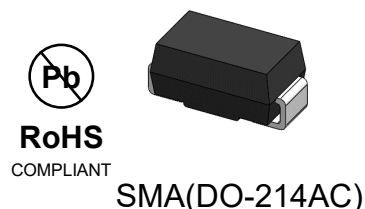


600W, 5 - 90V Transient Voltage Suppressors

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
- 600 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}	600	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}	50	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					
ASMA6J5.0AS	ASMA6J5.0CAS	AKES	AAES	6.40	7.07	10	5.0	800	65.2	9.2
ASMA6J6.0AS	ASMA6J6.0CAS	AKGS	AAGS	6.67	7.37	10	6.0	800	58.3	10.3
ASMA6J6.5AS	ASMA6J6.5CAS	AKKS	AAKS	7.22	7.98	10	6.5	500	53.6	11.2
ASMA6J7.0AS	ASMA6J7.0CAS	AKMS	AAMS	7.78	8.60	10	7.0	200	50.0	12.0
ASMA6J7.5AS	ASMA6J7.5CAS	AKPS	AAPS	8.33	9.21	1.0	7.5	100	46.5	12.9
ASMA6J8.0AS	ASMA6J8.0CAS	AKRS	AARS	8.89	9.83	1.0	8.0	50	44.1	13.6
ASMA6J8.5AS	ASMA6J8.5CAS	AKTS	AATS	9.44	10.4	1.0	8.5	20	41.7	14.4
ASMA6J9.0AS	ASMA6J9.0CAS	AKVS	AAVS	10.0	11.1	1.0	9.0	10.0	39.0	15.4
ASMA6J10AS	ASMA6J10CAS	AKXS	AAXS	11.1	12.3	1.0	10	5.0	35.3	17.0
ASMA6J11AS	ASMA6J11CAS	AKZS	AAZS	12.2	13.5	1.0	11	5.0	33.0	18.2
ASMA6J12AS	ASMA6J12CAS	ALES	ABES	13.3	14.7	1.0	12	5.0	30.2	19.9
ASMA6J13AS	ASMA6J13CAS	ALGS	ABGS	14.4	15.9	1.0	13	1.0	27.9	21.5
ASMA6J14AS	ASMA6J14CAS	ALKS	ABKS	15.6	17.2	1.0	14	1.0	25.9	23.2
ASMA6J15AS	ASMA6J15CAS	ALMS	ABMS	16.7	18.5	1.0	15	1.0	24.6	24.4
ASMA6J16AS	ASMA6J16CAS	ALPS	ABPS	17.8	19.7	1.0	16	1.0	23.1	26.0
ASMA6J17AS	ASMA6J17CAS	ALRS	ABRS	18.9	20.9	1.0	17	1.0	21.7	27.6
ASMA6J18AS	ASMA6J18CAS	ALTS	ABTS	20.0	22.1	1.0	18	1.0	20.5	29.2
ASMA6J20AS	ASMA6J20CAS	ALVS	ABVS	22.2	24.5	1.0	20	1.0	18.5	32.4
ASMA6J22AS	ASMA6J22CAS	ALXS	ABXS	24.4	26.9	1.0	22	1.0	16.9	35.5
ASMA6J24AS	ASMA6J24CAS	ALZS	ABZS	26.7	29.5	1.0	24	1.0	15.4	38.9
ASMA6J26AS	ASMA6J26CAS	AMES	ACES	28.9	31.9	1.0	26	1.0	14.3	42.1
ASMA6J28AS	ASMA6J28CAS	AMGS	ACGS	31.1	34.4	1.0	28	1.0	13.2	45.4
ASMA6J30AS	ASMA6J30CAS	AMKS	ACKS	33.3	36.8	1.0	30	1.0	12.4	48.4
ASMA6J33AS	ASMA6J33CAS	AMMS	ACMS	36.7	40.6	1.0	33	1.0	11.3	53.3
ASMA6J36AS	ASMA6J36CAS	AMPS	ACPS	40.0	44.4	1.0	36	1.0	10.3	58.1
ASMA6J40AS	ASMA6J40CAS	AMRS	ACRS	44.4	49.1	1.0	40	1.0	9.3	64.5
ASMA6J43AS	ASMA6J43CAS	AMTS	ACTS	47.8	52.8	1.0	43	1.0	8.6	69.4
ASMA6J45AS	ASMA6J45CAS	AMVS	ACVS	50.0	55.3	1.0	45	1.0	8.3	72.7
ASMA6J48AS	ASMA6J48CAS	AMXS	ACXS	53.3	58.9	1.0	48	1.0	7.8	77.4
ASMA6J51AS	ASMA6J51CAS	AMZS	ACZS	56.7	62.7	1.0	51	1.0	7.3	82.4
ASMA6J54AS	ASMA6J54CAS	ANES	ADES	60.0	66.3	1.0	54	1.0	6.9	87.1
ASMA6J58AS	ASMA6J58CAS	ANGS	ADGS	64.4	71.2	1.0	58	1.0	6.4	93.6
ASMA6J60AS	ASMA6J60CAS	ANKS	ADKS	66.7	73.7	1.0	60	1.0	6.2	96.8
ASMA6J64AS	ASMA6J64CAS	ANMS	ADMS	71.1	78.6	1.0	64	1.0	5.8	103

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					
ASMA6J70AS	ASMA6J70CAS	ANPS	ADPS	77.8	86.0	1.0	70	1.0	5.3	113
ASMA6J75AS	ASMA6J75CAS	ANRS	ADRS	83.3	92.1	1.0	75	1.0	5.0	121
ASMA6J78AS	ASMA6J78CAS	ARTS	ADTS	86.7	95.8	1.0	78	1.0	4.8	126
ASMA6J85AS	ASMA6J85CAS	ANVS	ADVS	94.4	104	1.0	85	1.0	4.4	137
ASMA6J90AS	ASMA6J90CAS	ANXS	ADXS	100	111	1.0	90	1.0	4.1	146

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)

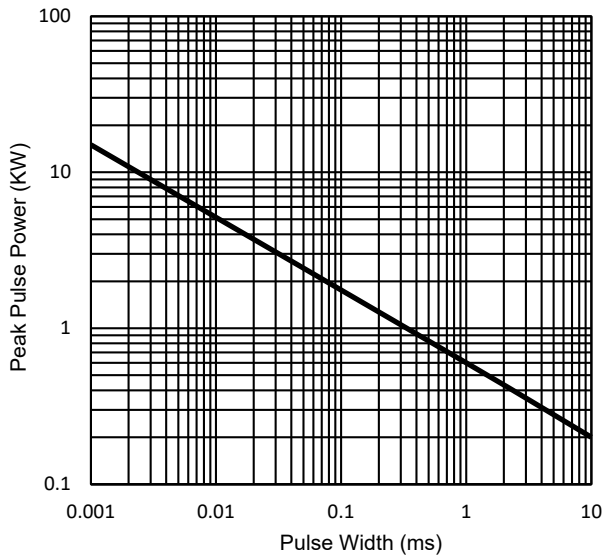


Fig.1 -Peak Pulse Power Derating Curve

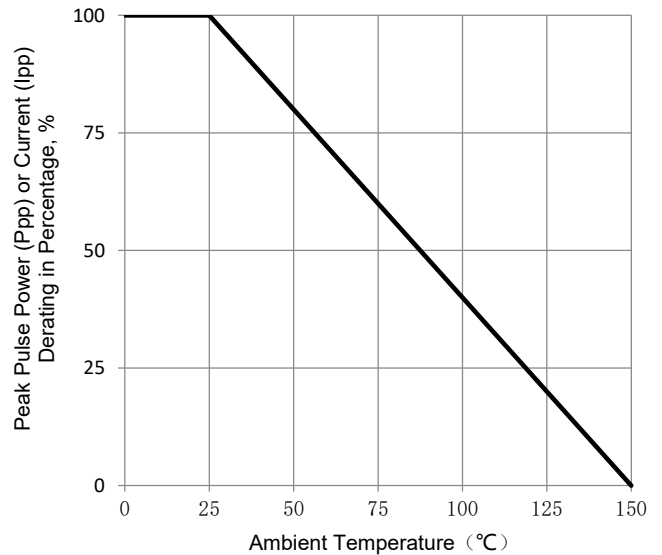


Fig.2 - Pulse Power vs Ambient Temperature

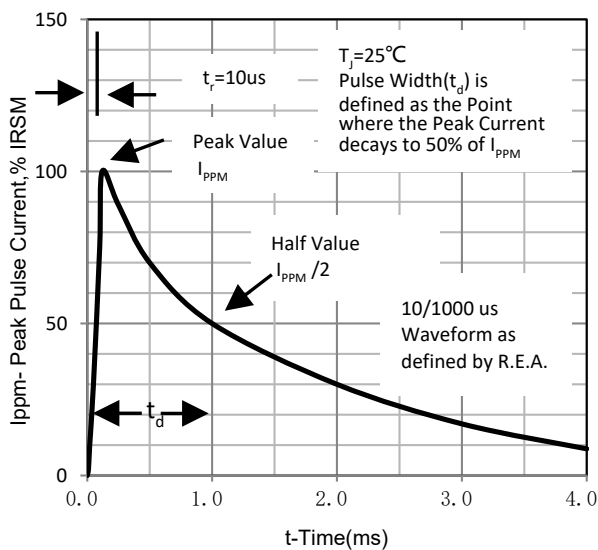


Fig.3 - Pulse Waveform

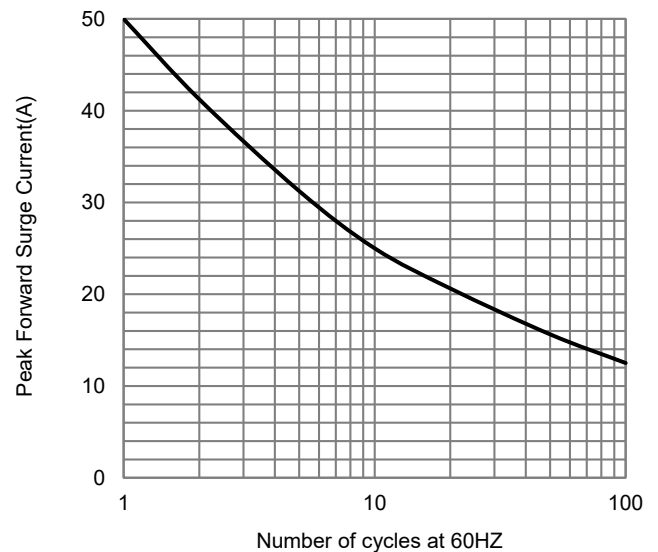
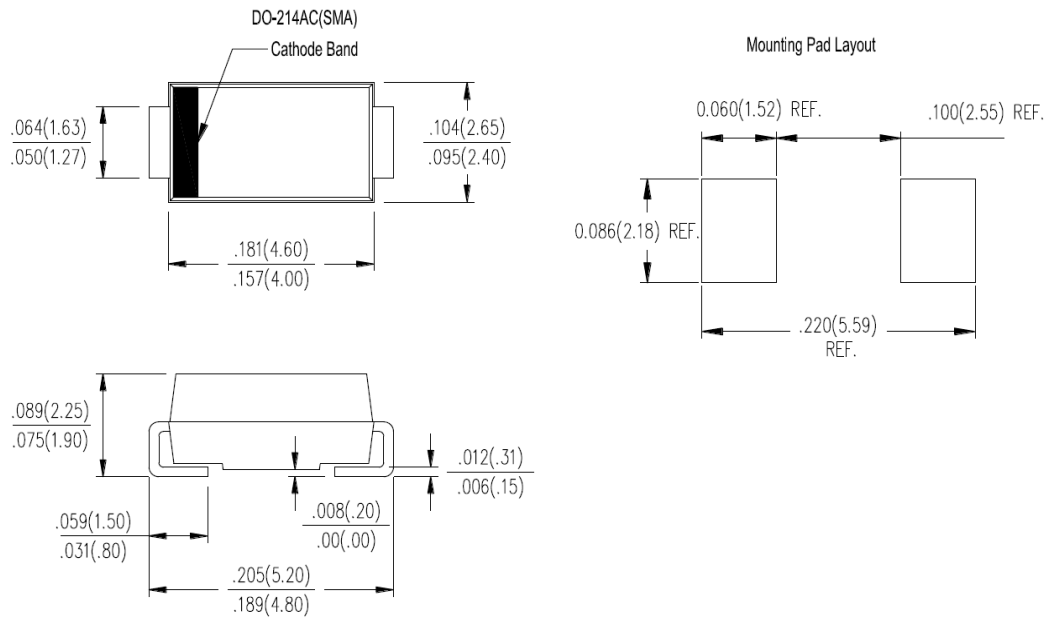


Fig.4 - Maximum Non-Repetitive Surge Current

Package Outline Dimensions

in inches (millimeters)

SMA (DO-214AC)



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