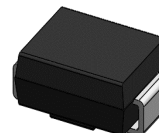


600W, 5 - 90V Transient Voltage Suppressors

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



SMB (DO-214AA)

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	3.75	W
Peak forward surge current, 8.3ms single half-sine wave	I _{FSM}	100	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}	85	°C / W
Thermal Resistance, Junction to Case	R _{thJC}	15	°C / W
Thermal Resistance, Junction to Lead	R _{thJL}	20	°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					
ASMBJ5.0AS	ASMBJ5.0CAS	AKES	AAES	6.40	7.07	10	5.0	800	65.2	9.2
ASMBJ6.0AS	ASMBJ6.0CAS	AKGS	AAGS	6.67	7.37	10	6.0	800	58.3	10.3
ASMBJ6.5AS	ASMBJ6.5CAS	AKKS	AAKS	7.22	7.98	10	6.5	500	53.6	11.2
ASMBJ7.0AS	ASMBJ7.0CAS	AKMS	AAMS	7.78	8.60	10	7.0	200	50.0	12.0
ASMBJ7.5AS	ASMBJ7.5CAS	AKPS	AAPS	8.33	9.21	1.0	7.5	100	46.5	12.9
ASMBJ8.0AS	ASMBJ8.0CAS	AKRS	AARS	8.89	9.83	1.0	8.0	50	44.1	13.6
ASMBJ8.5AS	ASMBJ8.5CAS	AKTS	AATS	9.44	10.4	1.0	8.5	20	41.7	14.4
ASMBJ9.0AS	ASMBJ9.0CAS	AKVS	AAVS	10.0	11.1	1.0	9.0	10.0	39.0	15.4
ASMBJ10AS	ASMBJ10CAS	AKXS	AAXS	11.1	12.3	1.0	10.0	5.0	35.3	17.0
ASMBJ11AS	ASMBJ11CAS	AKZS	AAZS	12.2	13.5	1.0	11.0	5.0	33.0	18.2
ASMBJ12AS	ASMBJ12CAS	ALES	ABES	13.3	14.7	1.0	12.0	5.0	30.2	19.9
ASMBJ13AS	ASMBJ13CAS	ALGS	ABGS	14.4	15.9	1.0	13	1.0	27.9	21.5
ASMBJ14AS	ASMBJ14CAS	ALKS	ABKS	15.6	17.2	1.0	14	1.0	25.9	23.2
ASMBJ15AS	ASMBJ15CAS	ALMS	ABMS	16.7	18.5	1.0	15	1.0	24.6	24.4
ASMBJ16AS	ASMBJ16CAS	ALPS	ABPS	17.8	19.7	1.0	16	1.0	23.1	26.0
ASMBJ17AS	ASMBJ17CAS	ALRS	ABRS	18.9	20.9	1.0	17	1.0	21.7	27.6
ASMBJ18AS	ASMBJ18CAS	ALTS	ABTS	20.0	22.1	1.0	18	1.0	20.5	29.2
ASMBJ20AS	ASMBJ20CAS	ALVS	ABVS	22.2	24.5	1.0	20	1.0	18.5	32.4
ASMBJ22AS	ASMBJ22CAS	ALXS	ABXS	24.4	26.9	1.0	22	1.0	16.9	35.5
ASMBJ24AS	ASMBJ24CAS	ALZS	ABZS	26.7	29.5	1.0	24	1.0	15.4	38.9
ASMBJ26AS	ASMBJ26CAS	AMES	ACES	28.9	31.9	1.0	26	1.0	14.3	42.1
ASMBJ28AS	ASMBJ28CAS	AMGS	ACGS	31.1	34.4	1.0	28	1.0	13.2	45.4
ASMBJ30AS	ASMBJ30CAS	AMKS	ACKS	33.3	36.8	1.0	30	1.0	12.4	48.4
ASMBJ33AS	ASMBJ33CAS	AMMS	ACMS	36.7	40.6	1.0	33	1.0	11.3	53.3
ASMBJ36AS	ASMBJ36CAS	AMPS	ACPS	40.0	44.4	1.0	36	1.0	10.3	58.1
ASMBJ40AS	ASMBJ40CAS	AMRS	ACRS	44.4	49.1	1.0	40	1.0	9.3	64.5
ASMBJ43AS	ASMBJ43CAS	AMTS	ACTS	47.8	52.8	1.0	43	1.0	8.6	69.4
ASMBJ45AS	ASMBJ45CAS	AMVS	ACVS	50.0	55.3	1.0	45	1.0	8.3	72.7
ASMBJ48AS	ASMBJ48CAS	AMXS	ACXS	53.3	58.9	1.0	48	1.0	7.8	77.4
ASMBJ51AS	ASMBJ51CAS	AMZS	ACZS	56.7	62.7	1.0	51	1.0	7.3	82.4
ASMBJ54AS	ASMBJ54CAS	ANES	ADES	60.0	66.3	1.0	54	1.0	6.9	87.1
ASMBJ58AS	ASMBJ58CAS	ANGS	ADGS	64.4	71.2	1.0	58	1.0	6.4	93.6
ASMBJ60AS	ASMBJ60CAS	ANKS	ADKS	66.7	73.7	1.0	60	1.0	6.2	96.8
ASMBJ64AS	ASMBJ64CAS	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					
ASMBJ70AS	ASMBJ70CAS	ANPS	ADPS	77.8	86.0	1.0	70	1.0	5.3	113
ASMBJ75AS	ASMBJ75CAS	ANRS	ADRS	83.3	92.1	1.0	75	1.0	5.0	121
ASMBJ78AS	ASMBJ78CAS	ANTS	ADTS	86.7	95.8	1.0	78	1.0	4.8	126
ASMBJ85AS	ASMBJ85CAS	ANVS	ADVS	94.4	104	1.0	85	1.0	4.4	137
ASMBJ90AS	ASMBJ90CAS	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 ($T_A = 25^\circ\text{C}$ unless otherwise noted)

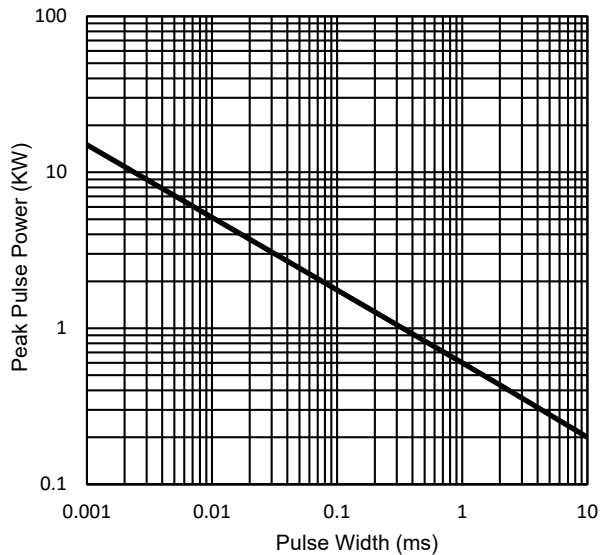


Fig.1 - Peak Pulse Power Derating Curve

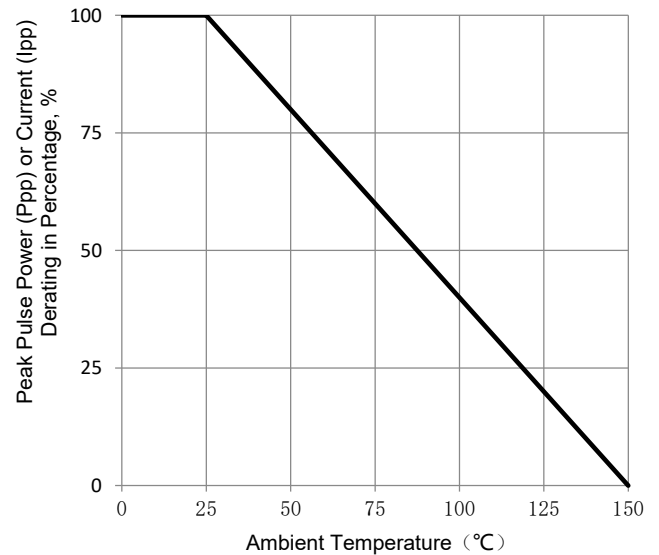


Fig.2 - Maximum Non-Repetitive Surge Current

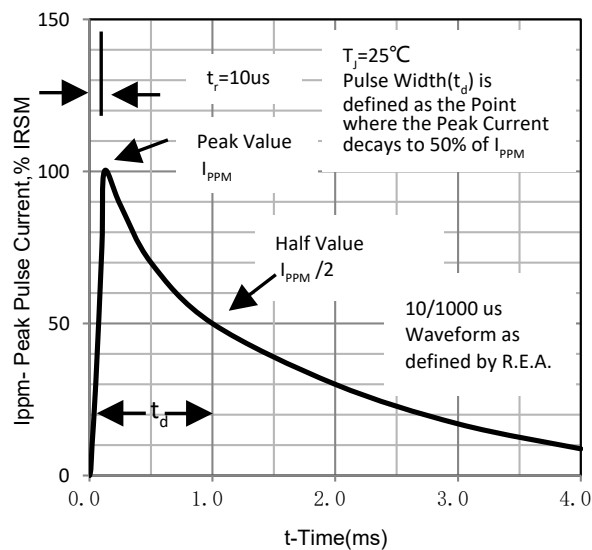


Fig.3 - Typical Forward Voltage Characteristics

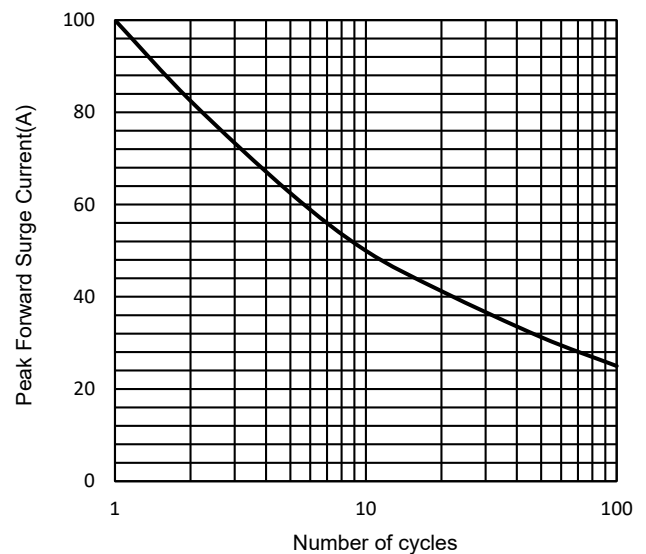
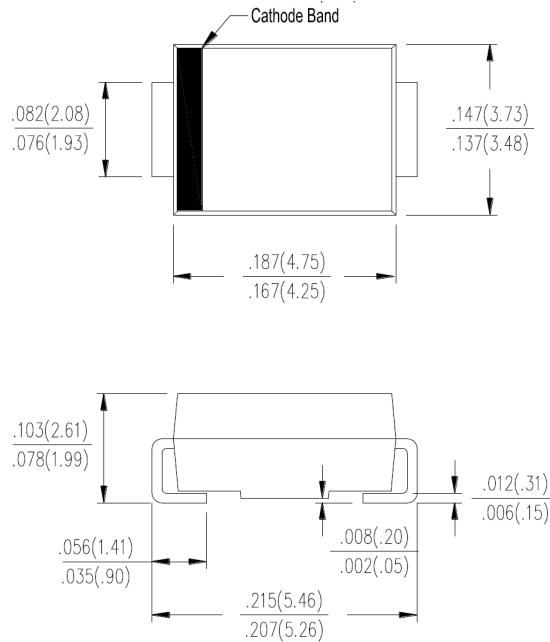


Fig.4 - Typical Reverse Current Characteristics

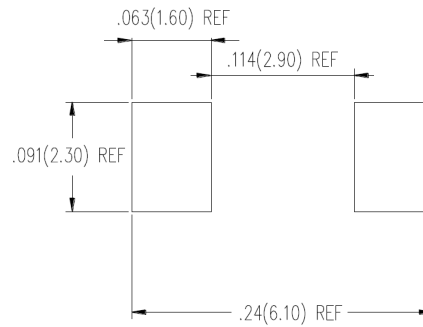
Package Outline Dimensions

in inches (millimeters)

SMB (DO-214AA)



Mounting Pad Layout



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