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GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

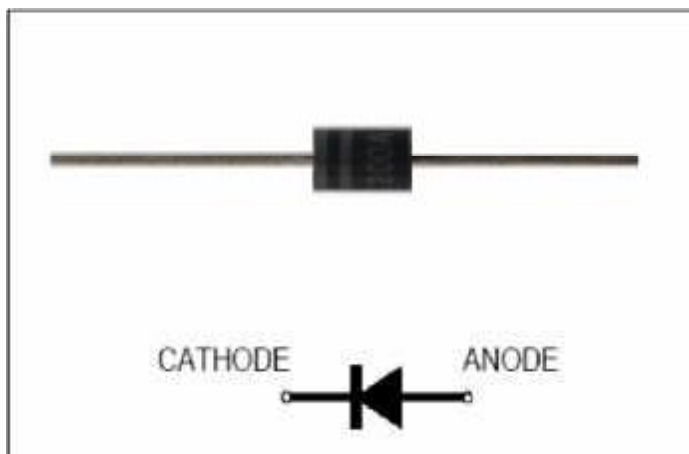
VOLTAGE - 5.0 TO 170 Volts

500Watt Peak Power

3.0 Watt Steady State

Feature

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- * Glass passivated chip junction in DO-15 package
- * 500W surge capability at 1ms
- * Excellent clamping capability
- * Low zener impedance
- * Fast response time: typically less than 1.0 ps from 0 volts to BV min
- * Typical IR less than 1μA above 10V
- * High temperature soldering guaranteed: 260 /10 seconds/.375", (9.5mm) lead length/5lbs., (2.3kg) tension



Mechanical Data

Case: JEDEC DO-15 molded plastic

Terminals: Axial leads, solderable per MIL-STD-202, Method 208

Polarity: Color band denoted cathode except Bipolar

Mounting Position: Any

Weight: 0.015 ounce, 0.4 gram

We declare that the material of product compliance with ROHS requirements

DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types SA5.0A thru types SA170A

Electrical characteristics apply in both directions.marking code is all type.

Electrical Characteristic

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

1.Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Power Dissipation at $T_A=25^{\circ}\text{C}$, $T_P=1\text{ms}$ (Note 1)	P_{PPM}	Minimum 500	Watts
Steady State Power Dissipation at $T_L=75^{\circ}\text{C}$ Lead Lengths .375", (9.5mm) (Note 2)	$P_{M(AV)}$	3.0	Watts
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load(JECED Method) (Note 3)	I_{FSM}	70	Amps
Operating Temperature Range	T_J	-55 to +150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +175	$^{\circ}\text{C}$

NOTES:

1. Non-repetitive current pulse, per Fig. 3 and derated above $T_A=25^{\circ}\text{C}$ per Fig. 2.
2. Mounted on Copper Leaf area of 1.57in²(40mm²).
3. 8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.

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UNI-DIRECTIONAL	REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE	BREAKDOWN VOLTAGE	TEST CURRENT	MAXIMUM CLAMPING VOLTAGE	MAXIMUM PEAK PULSE CURRENT	REVERSE LEAKAGE @VRWM
PART NUMBER	VOLTAGE VRWM (V)	VBR (V) MIN. @IT	VBR (V) MAX. @IT	IT (mA)	VOLTAGE @IPP VC (V)	IPP (Amps)	IR (uA)
SA5.0	5.0	6.4	7.3	10	9.6	52	600
SA5.0A	5.0	6.4	7.0	10	9.2	54.3	600
SA6.0	6.0	6.7	8.2	10	11.4	43.9	600
SA6.0A	6.0	6.7	7.4	10	10.3	48.5	600
SA6.5	6.5	7.2	8.8	10	12.3	40.7	400
SA6.5A	6.5	7.2	8.0	10	11.2	44.7	400
SA7.0	7.0	7.8	8.6	10	13.3	37.8	150
SA7.0A	7.0	7.8	8.6	10	12	41.7	150
SA7.5	7.5	8.3	10.2	1	14.3	35	50
SA7.5A	7.5	8.3	9.2	1	12.9	38.8	50
SA8.0	8.0	8.9	10.9	1	15	33.3	25
SA8.0A	8.0	8.9	9.8	1	13.6	36.7	25
SA8.5	8.5	9.4	11.5	1	15.9	31.4	10
SA8.5A	8.5	9.4	10.4	1	14.4	34.7	10
SA9.0	9.0	10.0	12.2	1	16.9	29.5	1
SA9.0A	9.0	10.0	11.1	1	15.4	32.5	1
SA10	10	11.1	13.6	1	18.8	26.6	1
SA10A	10	11.1	12.3	1	17	29.4	1
SA11	11	12.2	14.9	1	20.1	24.9	1
SA11A	11	12.2	13.5	1	18.2	27.4	1
SA12	12	13.3	16.3	1	22	22.7	1
SA12A	12	13.3	14.7	1	19.9	25.1	1
SA13	13	14.4	17.6	1	23.8	21	1
SA13A	13	14.4	15.9	1	21.5	23.2	1
SA14	14	15.6	19.1	1	25.8	19.4	1
SA14A	14	15.6	17.2	1	23.2	21.5	1
SA15	15	16.7	20.4	1	26.9	18.8	1
SA15A	15	16.7	18.5	1	24.4	20.6	1
SA16	16	17.8	21.8	1	28.8	17.6	1
SA16A	16	17.8	19.7	1	26	17.6	1
SA17	17	18.9	23.1	1	30.5	16.4	1
SA17A	17	18.9	20.9	1	27.6	16.1	1
SA18	18	20.0	24.4	1	32.2	15.5	1
SA18A	18	20.0	22.1	1	29.2	17.2	1
SA20	20	22.2	27.1	1	35.8	13.9	1
SA20A	20	22.2	24.5	1	32.4	15.4	1
SA22	22	24.4	29.8	1	39.4	12.7	1
SA22A	22	24.4	26.9	1	35.5	14.1	1
SA24	24	26.7	32.6	1	43	11.6	1
SA24A	24	26.7	29.5	1	38.9	12.8	1
SA26	26	28.9	35.3	1	46.6	10.7	1
SA26A	26	28.9	31.9	1	42.1	11.9	1
SA28	28	31.1	38.0	1	50	9.9	1
SA28A	28	31.1	34.4	1	45.4	11	1
SA30	30	33.3	40.7	1	53.5	9.3	1
SA30A	30	33.3	36.8	1	48.4	10.3	1
SA33	33	36.7	44.9	1	59	8.5	1
SA33A	33	36.7	40.6	1	53.3	9.4	1

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PART NUMBER	VOLTAGE VRWM (V)	VBR (V) MIN. @IT	VBR (V) MAX. @IT	IT (mA)	VOLTAGE @IPP VC (V)	IPPM (Amps)	IR (uA)
SA36	36	40.0	48.9	1	64.3	7.8	1
SA36A	36	40.0	44.2	1	58.1	8.5	1
SA40	40	44.4	54.3	1	71.4	7.0	1
SA40A	40	44.4	49.1	1	64.5	7.8	1
SA43	43	47.8	58.4	1	76.7	6.5	1
SA43A	43	47.8	52.8	1	69.4	7.2	1
SA45	45	50.0	61.1	1	80.3	6.2	1
SA45A	45	50.0	55.3	1	72.7	6.9	1
SA48	48	53.3	65.1	1	85.5	5.8	1
SA48A	48	53.3	58.9	1	77.4	6.5	1
SA51	51	56.7	69.3	1	91.1	5.5	1
SA51A	51	56.7	62.7	1	82.4	6.1	1
SA54	54	60.0	73.3	1	96.3	5.2	1
SA54A	54	60.0	66.3	1	87.1	5.7	1
SA58	58	64.4	78.7	1	103	4.9	1
SA58A	58	64.4	71.2	1	93.6	5.3	1
SA60	60	66.7	81.5	1	107	4.7	1
SA60A	60	66.7	73.7	1	96.8	5.2	1
SA64	64	71.1	86.9	1	114	4.4	1
SA64A	64	71.1	78.6	1	103	4.9	1
SA70	70	77.8	95.1	1	125	4.0	1
SA70A	70	77.8	86.0	1	113	4.4	1
SA75	75	83.3	102.0	1	134	3.7	1
SA75A	75	83.3	92.1	1	121	4.1	1
SA78	78	86.7	106.0	1	139	3.6	1
SA78A	78	86.7	95.8	1	126	4.0	1
SA85	85	94.4	115.0	1	151	3.3	1
SA85A	85	94.4	104.0	1	137	3.6	1
SA90	90	100	122	1	160	3.1	1
SA90A	90	100	111	1	146	3.4	1
SA100	100	111	136	1	179	2.8	1
SA100A	100	111	123	1	162	2.8	1
SA110	110	122	149	1	196	2.6	1
SA110A	110	122	135	1	177	2.8	1
SA120	120	133	163	1	214	2.3	1
SA120A	120	133	147	1	193	2.0	1
SA130	130	144	176	1	231	2.2	1
SA130A	130	144	159	1	209	2.4	1
SA150	150	167	204	1	268	1.9	1
SA150A	150	167	185	1	243	2.1	1
SA160	160	178	218	1	287	1.7	1
SA160A	160	178	197	1	259	1.9	1
SA170	170	189	231	1	304	1.6	1
SA170A	170	189	209	1	275	1.8	1

For bidirectional type having Vrwm of 10 volts and less, the IR limit is double.

For parts without A , the VBR is $\pm 10\%$