



Transient Voltage Suppression Diodes

SA Series

Axial Type

500 Watt Specifications

Features | Absolute Maximum Ratings | Mechanical Dimensions | Standard Mounting Pad Layout | Electrical Characteristics

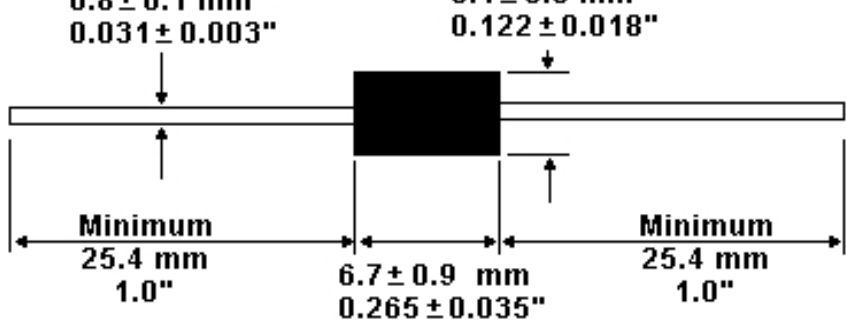
Features

- ? RoHS Compliance Standard
- ? 500 watt peak pulse power dissipation
- ? Available in voltages from 5.0V to 170V
- ? Unidirectional and Bidirectional
- ? Glass passivated junction
- ? Low clamping factor
- ? Available in bulk or tape and reel (Reel quantity = 4,000 pieces)
- ? Each device 100% surge tested
- ? Tape and Reel to EIA Standard RS-296-E

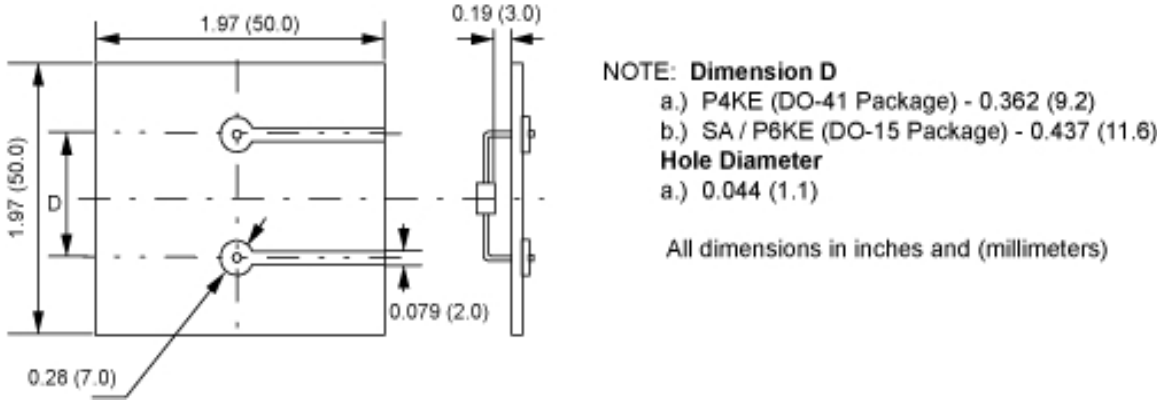
Absolute Maximum Ratings

Parameter	Value
Peak pulse power dissipation (P _{ppm}) at 25°C	500W
Steady state power dissipation at lead temperature = 75°C (Lead length 3/8" min.)	1W
Operating and storage temperatures	-55°C to + 175°C

Mechanical Dimensions



Standard Mounting Pad Layout



Electrical Characteristics

Part Number*	Rated Standoff Voltage	Breakdown Voltage			Maximum Stand By Current @VWM+ ID	10/1000µ s Maximum Clamping Voltage @1PPM# VC Max	10/1000µ s Rated Peak Impulse Current I PPM#
		VBR (Volts)		@1T			
	VWM (Volts)	Min	Max	(mA)	(µ A)	(Volts)	(Amperes)
SA5.0	5.0	6.40	7.30	10	600	9.6	52.0
SA5.0A	5.0	6.40	7.00	10	600	9.2	54.3
SA6.0	6.0	6.67	8.15	10	600	11.4	43.9
SA6.0A	6.0	6.67	7.37	10	600	10.3	48.5
SA6.5	6.5	7.22	8.82	10	400	12.3	40.7
SA6.5A	6.5	7.22	7.98	10	400	11.2	44.7
SA7.0	7.0	7.78	9.51	10	150	13.3	37.8
SA7.0A	7.0	7.78	8.60	10	150	12.0	41.7
SA7.5	7.5	8.33	10.2	1	50	14.3	35.0
SA7.5A	7.5	8.33	9.21	1	50	12.9	38.8
SA8.0	8.0	8.89	10.9	1	25	15.0	33.3
SA8.0A	8.0	8.89	9.83	1	25	13.6	36.7
SA8.5	8.5	9.44	11.5	1	10	15.9	31.4
SA8.5A	8.5	9.44	10.4	1	10	14.4	34.7
SA9.0	9.0	10.0	12.2	1	5	16.9	29.5
SA9.0A	9.0	10.0	11.1	1	5	15.4	32.5
SA10	10	11.1	13.6	1	3	18.8	26.6
SA10A	10	11.1	12.3	1	3	17.0	29.4
SA11	11	12.2	14.9	1	3	20.1	24.9
SA11A	11	12.2	13.5	1	3	18.2	27.4
SA12	12	13.3	16.3	1	3	22.0	22.7
SA12A	12	13.3	14.7	1	3	19.9	25.1
SA13	13	14.4	17.6	1	3	23.8	21.0
SA13A	13	14.4	15.9	1	3	21.5	23.2
SA14	14	15.6	19.1	1	3	25.8	19.4
SA14A	14	15.6	17.2	1	3	23.2	21.5
SA15	15	16.7	20.4	1	3	26.9	18.8
SA15A	15	16.7	18.5	1	3	24.4	20.6
SA16	16	17.8	21.8	1	3	28.8	17.6
SA16A	16	17.8	19.7	1	3	26.0	19.2
SA17	17	18.9	23.1	1	3	30.5	16.4
SA17A	17	18.9	20.9	1	3	27.6	18.1
SA18	18	20.0	24.4	1	3	32.2	15.5
SA18A	18	20.0	22.1	1	3	29.2	17.2
SA20	20	22.2	27.1	1	3	35.8	13.9
SA20A	20	22.2	24.5	1	3	32.4	15.4
SA22	22	24.4	29.8	1	3	39.4	12.7
SA22A	22	24.4	26.9	1	3	35.5	14.1
SA24	24	26.7	32.6	1	3	43.0	11.6
SA24A	24	26.7	29.5	1	3	38.9	12.8
SA26	26	28.9	35.3	1	3	46.6	10.7
SA26A	26	28.9	31.9	1	3	42.1	11.9
SA28	28	31.1	38.0	1	3	50.0	9.9
SA28A	28	31.1	34.4	1	3	45.4	11.0
SA30	30	33.3	40.7	1	3	53.5	9.3
SA30A	30	33.3	36.8	1	3	48.4	10.3
SA33	33	36.7	44.9	1	3	59.0	8.5
SA33A	33	36.7	40.6	1	3	53.3	9.4
SA36	36	40.0	48.9	1	3	64.3	7.8
SA36A	36	40.0	44.2	1	3	58.1	8.6
SA40	40	44.4	54.3	1	3	71.4	7.0
SA40A	40	44.4	49.1	1	3	64.5	7.8
SA43	43	47.8	58.4	1	3	76.7	6.5
SA43A	43	47.8	52.8	1	3	69.4	7.2
SA45	45	50.0	61.1	1	3	80.3	6.2
SA45A	45	50.0	55.3	1	3	72.7	6.9
SA48	48	53.3	65.1	1	3	85.5	5.8
SA48A	48	53.3	58.9	1	3	77.4	6.5
SA51	51	56.7	69.3	1	3	91.1	5.5
SA51A	51	56.7	62.7	1	3	82.4	6.1
SA54	54	60.0	73.3	1	3	96.3	5.2
SA54A	54	60.0	66.3	1	3	87.1	5.7
SA58	58	64.4	78.7	1	3	103.0	4.9
SA58A	58	64.4	71.2	1	3	93.6	5.3
SA60	60	66.7	81.5	1	3	107.0	4.7
SA60A	60	66.7	73.7	1	3	96.8	5.2
SA64	64	71.1	86.9	1	3	114.0	4.4
SA64A	64	71.1	78.6	1	3	103.0	4.9
SA70	70	77.8	95.1	1	3	125.0	4.0
SA70A	70	77.8	86.0	1	3	113.0	4.4
SA75	75	83.3	102.0	1	3	134.0	3.7
SA75A	75	83.3	92.1	1	3	121.0	4.1
SA78	78	86.7	106.0	1	3	139.0	3.6
SA78A	78	86.7	95.8	1	3	126.0	4.0
SA85	85	94.4	115.0	1	3	151.0	3.3
SA85A	85	94.4	104.0	1	3	137.0	3.6
SA90	90	100	122.0	1	3	160.0	3.1
SA90A	90	100	111.0	1	3	146.0	3.4
SA100	100	111	136.0	1	3	179.9	2.8
SA100A	100	111	123.0	1	3	162.0	3.1
SA110	110	122	149.0	1	3	196.0	2.6
SA110A	110	122	135.0	1	3	177.0	2.8
SA120	120	133	163.0	1	3	214.0	2.3
SA120A	120	133	147.0	1	3	193.0	2.0
SA130	130	144	176.0	1	3	231.0	2.2
SA130A	130	144	159.0	1	3	209.0	2.4
SA150	150	167	204.0	1	3	268.0	1.9
SA150A	150	167	185.0	1	3	243.0	2.1
SA160	160	178	218.0	1	3	287.0	1.7
SA160A	160	178	197.0	1	3	259.0	1.9
SA170	170	189	231.0	1	3	304.0	1.6
SA170A	170	189	209.0	1	3	275.0	1.8

* = Add "C" or "CA" suffix for bidirectional device types. (SA5.0A is not available in Bi-Directional)

+ = For Bidirectional Types Having VWM <= 10V, their I_B limit is doubled.

= See General Information for Impulse Current Waveform.

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