

# TVS DIODE Electrical Characteristics

## SA & 5KP Series: 5 to 180 Volts

Transient Voltage Suppressor (500W & 5000W)

Operating Temperature: -55 C to +175 C

Break Down Voltage Code	Reverse Stand-Off Voltage VRWM (V)	Series: SA (500W P <sub>PK</sub> )					Series: 5KP (5000W P <sub>PK</sub> )					Maximum Clamping Voltage @ I <sub>pp</sub> V <sub>c</sub> (V)
		Breakdown Voltage VBR (V) @ I <sub>T</sub>		Test Current I <sub>T</sub> (mA)	Peak Pulse Current I <sub>pp</sub> (A)	Reverse Leakage @ VRWM	Breakdown Voltage VBR (V) @ I <sub>T</sub>		Test Current I <sub>T</sub> (mA)	Peak Pulse Current I <sub>pp</sub> (A)	Reverse Leakage @ VRWM IR (pA)	
		MIN.	MAX.				MIN.	MAX.				
5	5	6.4	7.3	10	53.1	600	6.4	7.3	50	522.0	5000	9.6
5.0A	5	6.4	7.0	10	55.4	600	6.4	7.0	50	544.0	5000	9.2
6	6	6.67	8.2	10	44.7	600	6.67	8.2	50	439.0	5000	11.4
6.0A	6	6.67	7.4	10	49.5	600	6.67	7.4	50	486.0	5000	10.3
6.5	6.5	7.22	8.8	10	41.5	400	7.22	8.8	50	407.0	2000	12.3
6.5A	6.5	7.22	8.0	10	45.5	400	7.22	8.0	50	447.0	2000	11.2
7	7	7.78	9.5	10	38.3	150	7.78	9.5	50	377.0	1000	13.3
7.0A	7	7.78	8.6	10	42.5	150	7.78	8.6	50	417.0	1000	12.0
7.5	7.5	8.33	10.2	1	35.7	50	8.33	10.2	5	350.0	250	14.3
7.5A	7.5	8.33	9.2	1	39.5	50	8.33	9.2	5	388.0	250	12.9
8	8	8.89	10.9	1	34.0	25	8.89	10.9	5	334.0	150	15.0
8.0A	8	8.89	9.8	1	37.5	25	8.89	9.8	5	368.0	150	13.6
8.5	8.5	9.44	11.5	1	32.1	10	9.44	11.5	5	315.0	50	15.9
8.5A	8.5	9.44	10.4	1	35.4	10	9.44	10.4	5	348.0	50	14.4
9	9	10	12.2	1	30.2	5	10	12.2	5	296.0	20	16.9
9.0A	9	10	11.1	1	33.1	5	10	11.1	5	325.0	20	15.4
10	10	11.1	13.6	1	27.1	3	11.1	13.6	5	266.0	15	18.8
10A	10	11.1	12.3	1	30.0	3	11.1	12.3	5	295.0	15	17.0
11	11	12.2	14.9	1	25.4	3	12.2	14.9	5	249.0	10	20.1
11A	11	12.2	13.5	1	28.0	3	12.2	13.5	5	275.0	10	18.2
12	12	13.3	16.3	1	23.2	3	13.3	16.3	5	228.0	10	22.0
12A	12	13.3	14.7	1	25.6	3	13.3	14.7	5	252.0	10	19.9
13	13	14.4	15.9	1	23.7	3	14.4	17.6	5	210.0	10	23.8
13A	13	14.4	17.6	1	21.4	3	14.4	15.9	5	233.0	10	21.5
14	14	15.6	19.1	1	19.8	3	15.6	19.1	5	194.0	10	25.8
14A	14	15.6	17.2	1	22.0	3	15.6	17.2	5	216.0	10	23.2
15	15	16.7	20.4	1	19.0	3	16.7	20.4	5	186.0	10	26.9
15A	15	16.7	18.5	1	20.9	3	16.7	18.5	5	205.0	10	24.4
16	16	17.8	21.8	1	17.7	3	17.8	21.8	5	174.0	10	28.8
16A	16	17.8	19.7	1	19.6	3	17.8	19.7	5	193.0	10	26.0
17	17	18.9	23.1	1	16.7	3	18.9	23.1	5	164.0	10	30.5
17A	17	18.9	20.9	1	18.5	3	18.9	20.9	5	181.0	10	27.6
18	18	20	24.4	1	15.8	3	20	24.4	5	155.0	10	32.2
18A	18	20	22.1	1	17.5	3	20	22.1	5	172.0	10	29.2
20	20	22.2	27.1	1	14.2	3	22.2	27.1	5	140.0	10	35.8
20A	20	22.2	24.5	1	15.7	3	22.2	24.5	5	154.0	10	32.4
22	22	24.4	29.8	1	12.9	3	24.4	29.8	5	127.0	10	39.4
22A	22	24.4	26.9	1	14.4	3	24.4	26.9	5	141.0	10	35.5
24	24	26.7	32.6	1	11.9	3	26.7	32.6	5	116.0	10	43.0
24A	24	26.7	29.5	1	13.1	3	26.7	29.5	5	129.0	10	38.9
26	26	28.9	35.3	1	10.9	3	28.9	35.3	5	107.0	10	46.6
26A	26	28.9	31.9	1	12.1	3	28.9	31.9	5	119.0	10	42.1
28	28	31.1	38.0	1	10.2	3	31.1	38.0	5	100.0	10	50.1
28A	28	31.1	34.4	1	11.2	3	31.1	34.4	5	110.0	10	45.4
30	30	33.3	40.7	1	9.5	3	33.3	40.7	5	93.6	10	53.5
30A	30	33.3	36.8	1	10.5	3	33.3	36.8	5	103.0	10	48.4
33	33	36.7	44.9	1	8.6	3	36.7	44.9	5	84.8	10	59.0
33A	33	36.7	40.6	1	9.6	3	36.7	40.6	5	93.9	10	53.3
36	36	44.4	54.3	1	7.1	3	40	48.9	5	77.8	10	64.3
36A	36	40	48.9	1	7.9	3	40	44.2	5	86.1	10	58.1
40	40	40	44.2	1	8.8	3	44.4	54.3	5	70.1	10	71.4
40A	40	44.4	49.1	1	7.9	3	44.4	49.1	5	77.6	10	64.5
43	43	47.8	58.4	1	6.6	3	47.8	58.4	5	65.2	10	76.7
43A	43	50	61.1	1	6.4	3	47.8	52.8	5	72.1	10	69.4
45	45	47.8	52.8	1	7.3	3	50	61.1	5	62.3	10	80.3
45A	45	50	55.3	1	7.0	3	50	55.3	5	68.8	10	72.7
48	48	53.3	65.2	1	6.0	3	53.3	65.2	5	58.5	10	85.5
48A	48	53.3	58.9	1	6.6	3	53.3	58.9	5	64.7	10	77.4
51	51	56.7	62.7	1	6.2	3	56.7	69.3	5	54.9	10	91.1
51A	51	56.7	69.3	1	5.6	3	56.7	62.7	5	60.7	10	82.4
54	54	60	73.3	1	5.3	3	60	73.3	5	52.0	10	96.3
54A	54	60	66.3	1	5.9	3	60	66.3	5	57.5	10	87.1
58	58	64.4	78.7	1	5.0	3	64.4	78.7	5	48.6	10	103.0
58A	58	64.4	71.2	1	5.4	3	64.4	71.2	5	53.5	10	93.6
60	60	66.7	81.5	1	4.8	3	66.7	81.5	5	46.8	10	107.0
60A	60	66.7	73.7	1	5.3	3	66.7	73.7	5	51.7	10	96.8
64	64	71.1	86.9	1	4.5	3	71.1	86.9	5	43.9	10	114.0
64A	64	71.1	78.6	1	5.0	3	71.1	78.6	5	48.6	10	103.0
70	70	77.8	95.1	1	4.1	3	77.8	95.1	5	40.0	10	125.0
70A	70	77.8	86.0	1	4.5	3	77.8	86.0	5	44.3	10	113.0
75	75	83.3	102.0	1	3.8	3	83.3	102.0	5	37.4	10	134.0
75A	75	83.3	92.1	1	4.2	3	83.3	92.1	5	41.4	10	121.0
78	78	86.7	106.0	1	3.7	3	86.7	106.0	5	36.0	10	139.0
78A	78	86.7	95.8	1	4.0	3	86.7	95.8	5	39.7	10	126.0
85	85	94.4	115.0	1	3.4	3	94.4	115.0	5	33.2	10	151.0
85A	85	94.4	104.0	1	3.7	3	94.4	104.0	5	36.5	10	137.0
90	90	100	122.0	1	3.2	3	100	122.0	5	31.3	10	160.0
90A	90	100	111.0	1	3.5	3	100	111.0	5	34.3	10	146.0
100	100	111	136.0	1	2.8	3	111	136.0	5	28.0	10	179.0
100A	100	111	123.0	1	3.1	3	111	123.0	5	30.9	10	162.0
110	110	122	149.0	1	2.6	3	122	149.0	5	25.6	10	196.0
110A	110	122	135.0	1	2.9	3	122	135.0	5	28.3	10	177.0
120	120	133	163.0	1	2.4	3	133	163.0	5	23.4	10	214.0
120A	120	144	159.0	1	2.4	3	133	147.0	5	26.0	10	193.0
130	130	133	147.0	1	2.6	3	144	176.0	5	21.8	10	230.0
130A	130	144	176.0	1	2.2	3	144	159.0	5	24.0	10	209.0
150	150	167	204.0	1	1.9	3	167	204.0	5	18.7	10	268.0
150A	150	167	185.0	1	2.1	3	167	185.0	5	20.6	10	243.0
160	160	178	218.0	1	1.7	3	178	218.0	5	17.5	10	287.0
160A	160	189	231.0	1	1.7	3	178	197.0	5	19.3	10	259.0
170	170	178	197.0	1	2.0	3	189	231.0	5	16.5	10	304.0
170A	170	189	209.0	1	1.9	3	189	209.0	5	18.2	10	275.0
180	180	200	244.0	1	1.6	3	200	244.0	5	15.7	10	320.0
180A	180	200	233.0	1	1.7	3	200	233.0	5	17.3	10	289.0

