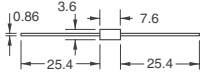




500 Watt Axial TVS Diode — SA Series

Improved 500W TVS diodes that can handle 1.00W steady state with improved reverse leakage characteristics. 100% surge tested. Use for applications requiring surge protection of sensitive electronic components. Marking: Cathode band – positive terminal (Uni-directional only), device code and logo.



(Value) Nominal Breakdown Voltage	Reverse Stand Off Voltage VR (V)	Breakdown Voltage VBR (V) @ IT		Maximum Reverse Leakage IR @ VR (µA)
		Min.	Max.	
5.0	5.0	6.40	7.00	600
6.0	6.0	6.67	7.37	600
12	12.0	13.30	14.70	1
15	15.0	16.70	18.50	1
16	16.0	17.80	19.70	1
33	33.0	36.70	40.60	1

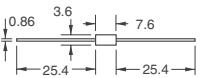
Description	Voltage Range (Value) See Chart	Digi-Key Part No.†	Cut Tape Pricing			Digi-Key Part No.†	Tape and Reel Pricing 4,000
			1	10	100		
Unidirectional	5.0 – 33	SA(Value)ALFCT-ND	.46	4.27	35.88	SA(Value)ALFTR-ND	169.52/M
Bidirectional	6.0 – 33	SA(Value)CALFCT-ND	.51	4.72	39.68	SA(Value)CALFTR-ND	187.45/M

† For complete part number, substitute (Value) from Value Chart.
 Note: Bidirectional type having Vr of 10V and less, the Ir limit is double.

500 Watt Axial TVS Diode — SAC Series

SAC is designed for the protection of I/O interfaces, Vcc bus and other vulnerable circuits used in telecom, computer, industrial and consumer electronic applications. Very low junction capacitance maximum of 50pF @ 0V. Marking: Cathode band – positive terminal (Uni-directional only), device code and logo.

Specifications: • Operating Junction and Storage Temperature Range: -55°C – 175°C



(Value) Nominal Breakdown Voltage	Reverse Stand Off Voltage VR (V)	Breakdown Voltage VBR (V) @ IT		Maximum Reverse Leakage IR @ VR (µA)
		Min.	Max.	
5.0	5.0	7.60	10.0	300
6.0	6.0	7.90	11.2	300
7.0	7.0	8.33	12.6	300
10	10.0	11.10	16.3	5
15	15.0	16.70	23.6	1

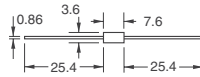
Description	Voltage Range (Value) See Chart	Digi-Key Part No.†	Cut Tape Pricing			Digi-Key Part No.†	Tape and Reel Pricing 4,000
			1	10	100		
Unidirectional	5.0 – 15	SAC(Value)CT-ND	.46	4.27	35.88	SAC(Value)TR-ND	169.52/M

† For complete part number, substitute (Value) from Value Chart.

600 Watt Axial TVS Diode — P6KE Series

Protects sensitive electronics against voltage transients induced by ESD, inductive load switching and lightning. Ideal for protection of I/O interfaces, Vcc bus and other power supply circuits. Marking: Cathode band – positive terminal (Uni-directional only), device code and logo.

- Glass passivated junction
- Excellent clamping capability
- Uni-directional and Bi-directional
- 100% surge tested



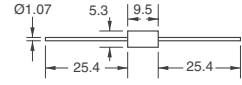
(Value) Nominal Breakdown Voltage	Reverse Stand Off Voltage VR (V)	Breakdown Voltage VBR (V) @ IT		Maximum Reverse Leakage IR @ VR (µA)	(Value) Nominal Breakdown Voltage	Reverse Stand Off Voltage VR (V)	Breakdown Voltage VBR (V) @ IT		Maximum Reverse Leakage IR @ VR (µA)
		Min.	Max.				Min.	Max.	
6.8	5.80	6.45	7.14	1000	43	36.80	40.90	45.20	5
7.5	6.40	7.13	7.88	500	47★	40.20	44.70	49.40	5
9.1	7.78	8.65	9.55	50	51	43.60	48.50	53.60	5
10	8.550	9.50	10.50	10	62	53.00	58.90	65.10	5
12	10.20	11.40	12.60	5	68	58.10	64.60	71.40	5
13	11.10	12.40	13.70	5	75	64.10	71.30	78.80	5
15	12.80	14.30	15.80	5	82	70.10	77.90	86.10	5
16	13.60	15.20	16.80	5	100	85.50	95.00	105.00	5
18	15.30	17.10	18.90	5	110	94.00	105.00	116.00	5
20	17.10	19.00	21.00	5	150	128.00	143.00	158.00	5
24	20.50	22.80	25.20	5	160	136.00	152.00	168.00	5
27	23.10	25.70	28.40	5	180	154.00	171.00	189.00	5
30	25.60	28.50	31.50	5	200	171.00	190.00	210.00	5
33	28.20	31.40	34.70	5	220	185.00	209.00	231.00	5
36	30.80	34.20	37.80	5	440	376.00	418.00	462.00	5

Description	Voltage Range (Value) See Chart	Digi-Key Part No.†	Cut Tape Pricing			Digi-Key Part No.†	Tape and Reel Pricing 4,000
			1	10	100		
Unidirectional	6.8 – 100, 150 – 200	P6KE(Value)ALFCT-ND	.39	3.65		P6KE(Value)ALFTR-ND	145.07/M
	220 – 440	P6KE(Value)ALFCT-ND	.56	5.13		P6KE(Value)ALFTR-ND	203.75/M
Bidirectional	6.8 – 200	P6KE(Value)CALFCT-ND	.45	4.10		P6KE(Value)CALFTR-ND	163.00/M
	220 – 440	P6KE(Value)CALFCT-ND	.63	5.75		P6KE(Value)CALFTR-ND	228.20/M

† For complete part number, substitute (Value) from Value Chart. ★ Only Bi-Directional stocked by Digi-Key.
 Note: Bidirectional type having Vr of 10V and less, the Ir limit is double.

1500 Watt Axial TVS Diode — 1.5KE Series

- Glass passivated junction
- Low clamping factor
- Uni-directional and Bi-directional
- 100% surge tested



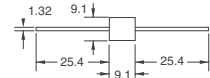
(Value) Nominal Breakdown Voltage	Reverse Stand Off Voltage VR (V)	Breakdown Voltage VBR (V) @ IT		Maximum Reverse Leakage IR @ VR (µA)	(Value) Nominal Breakdown Voltage	Reverse Stand Off Voltage VR (V)	Breakdown Voltage VBR (V) @ IT		Maximum Reverse Leakage IR @ VR (µA)
		Min.	Max.				Min.	Max.	
6.8	5.80	6.45	7.14	1000	51	43.60	48.50	53.60	1
7.5	6.40	7.13	7.88	500	56	47.80	53.20	58.80	1
10	8.55	9.50	10.50	10	68	58.10	64.60	71.40	1
12	10.20	11.40	12.60	5	82	70.10	77.90	86.10	1
15	12.80	14.30	15.80	1	91	77.80	86.50	95.50	1
18★	15.30	17.10	18.90	1	100	85.50	95.00	105.00	1
20	17.10	19.00	21.00	1	110	94.00	105.00	116.00	1
22	18.80	20.90	23.10	1	150	128.00	143.00	158.00	1
24	20.50	22.80	25.20	1	200	171.00	190.00	210.00	1
27	23.10	25.70	28.40	1	220	185.00	209.00	231.00	1
30	25.60	28.50	31.50	1	250	214.00	237.00	263.00	1
33	28.20	31.40	34.70	1	300	256.00	285.00	315.00	1
36	30.80	34.20	37.80	1	350	300.00	332.00	368.00	1
39	33.30	37.10	41.00	1	400	342.00	380.00	420.00	1
43	36.80	40.90	45.20	1	440	376.00	418.00	462.00	1
47	40.20	44.70	49.40	1					

Description	Voltage Range (Value) See Chart	Digi-Key Part No.†	Cut Tape Pricing			Digi-Key Part No.†	Tape and Reel Pricing 1,200
			1	10	100		
Unidirectional	6.8 – 200	1.5KE(Value)ALFCT-ND	.70	6.48		1.5KE(Value)ALFTR-ND	272.58/M
	220 – 440	1.5KE(Value)ALFCT-ND	.99	9.07		1.5KE(Value)ALFTR-ND	381.26/M
Bidirectional	6.8 – 200	1.5KE(Value)CALFCT-ND	.77	7.14		1.5KE(Value)CALFTR-ND	300.18/M
	220 – 440	1.5KE(Value)CALFCT-ND	1.09	10.02		1.5KE(Value)CALFTR-ND	420.94/M

† For complete part number, substitute (Value) from Value Chart. ★ Only Bi-Directional stocked by Digi-Key.
 Note: Bidirectional type having Vr of 10V and less, the Ir limit is double.

5000 Watt Axial TVS Diode — 5KP Series

The 5KP series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.



- Glass passivated junction
- Excellent clamping capability
- Low incremental surge resistance
- High temperature soldering guaranteed: 260°C/40 seconds
- Matte tin lead-free plated

(Value) Nominal Breakdown Voltage	Reverse Stand Off Voltage VR (V)	Breakdown Voltage VBR (V) @ IT		Maximum Reverse Leakage IR @ VR (µA)	(Value) Nominal Breakdown Voltage	Reverse Stand Off Voltage VR (V)	Breakdown Voltage VBR (V) @ IT		Maximum Reverse Leakage IR @ VR (µA)
		Min.	Max.				Min.	Max.	
5.0	5.00	6.40	7.00	5000	54	54.00	60.00	66.30	2
6.0	6.00	6.67	7.37	5000	58	58.00	64.40	71.20	2
6.5	6.50	7.22	7.98	2000	60	60.00	66.70	73.70	2
7.5	7.50	8.33	9.21	250	64	64.00	71.10	78.60	2
10	10.00	11.10	12.30	15	70	70.00	77.00	86.00	2
12	12.00	13.30	14.70	2	75	75.00	83.30	92.10	2
15	15.00	16.70	18.50	2	78	78.00	86.70	95.80	2
16	16.00	17.80	19.70	2	85	85.00	94.40	104.00	2
18	18.00	20.00	22.10	2	90	90.00	100.00	111.00	2
20	20.00	22.20	24.50	2	100	100.00	110.00	123.00	2
24	24.00	26.70	29.50	2	110	110.00	122.00	135.00	2
26	26.00	28.90	31.90	2	120	120.00	133.00	147.00	2
30	30.00	33.30	36.80	2	130	130.00	144.00	159.00	2
33	33.00	36.70	40.60	2	150	150.00	167.00	185.00	2
36	36.00	40.00	44.20	2	160	160.00	178.00	197.00	2
40	40.00	44.40	49.10	2	170	170.00	189.00	209.00	2
43	43.00	47.80	52.80	2	180	180.00	200.00	221.00	2
45	45.00	50.00	55.30	2	190	190.00	211.00	233.00	2
48	48.00	53.30	58.90	2	200	200.00	222.00	246.00	2
51	51.00	56.70	62.70	2	210	210.00	233.00	258.00	2
					220	220.00	244.00	270.00	2

Description	Voltage Range (Value) See Chart	Digi-Key Part No.†	Cut Tape Pricing			Digi-Key Part No.†	Tape and Reel Pricing 800
			1	10	100		
Unidirectional	5.0 – 6.0, 7.5 – 190	5KP(Value)ALFCT-ND	3.90	35.87		5KP(Value)ALFTR-ND	1331.01
	200 – 220	5KP(Value)ALFCT-ND✓	6.25	57.50		5KP(Value)ALFTR-ND✓	2133.57
Bidirectional	5.0 – 48	5KP(Value)CALFCT-ND	4.28	39.44		5KP(Value)CALFTR-ND	1463.50
	51 – 220	5KP(Value)CALFCT-ND	6.89	63.38		5KP(Value)CALFTR-ND	2351.35

✓ NEW! † For complete part number, substitute (Value) from Value Chart.
 Note: Bidirectional type having Vr of 10V and less, the Ir limit is double.

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