



## 400 Watt TVS Diode DO-214AC (SMA) Package SMAJ Series

**FEATURES:**

- Glass passivated junction
  - J lead construction
  - Matte tin plated leads
- SPECIFICATIONS:**
- Voltage Tolerance: 5%
  - Operating Temperature: -65°C - 150°C
  - High Temperature Soldering: 260°C for 40 seconds at terminals
  - Plastic Package: UL94V-0
  - Case: JEDEC DO-214AC
  - Electrical Specification: Tested at 25°C



Description	Voltage Range (Value) See Chart	Digi-Key Part No.†	Cut Tape Pricing			Tape and Reel Pricing 5,000‡
			1	10	100	
Uni-directional	5.0 - 200	SMAJ(Value)ALFCT-ND	.42	3.77	31.74	142.30/M
	220 - 440	SMAJ(Value)ALFCT-ND	.57	5.29	44.51	199.53/M
Bi-directional	5.0 - 7.5, 8.5 - 51	SMAJ(Value)CALFCT-ND	.45	4.19	35.19	157.77/M
	54 - 78, 90 - 100, 130 - 440	SMAJ(Value)CALFCT-ND	.64	5.87	49.34	221.18/M

† For complete part number, substitute (Value) from the Value Chart. ‡ For Tape and Reel part number, change CT-ND to TR-ND. Note: Bidirectional type having Vr of 10V and less, the Ir limit is double.

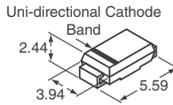
- § SMAJ-A-KIT-ND **NEW!** 36 values, 5 each of parts indicated (180 pieces) ..... \$38.43
- ▲ SMAJ-CA-KIT-ND **NEW!** 36 values, 5 each of parts indicated (180 pieces) ..... \$40.04

(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	800
6.0▲	6.0	6.67	7.37	800
6.5▲	6.5	7.22	7.98	500
7.0▲	7.0	7.78	8.60	200
7.5▲	7.5	8.33	9.21	100
8.0	8.0	8.89	9.83	50
8.5▲	8.5	9.44	10.40	20
9.0▲	9.0	10.00	11.10	10
10▲	10.0	11.10	12.30	5
11	11.0	12.20	13.50	1
12▲	12.0	13.30	14.70	1
13▲	13.0	14.40	15.90	1
14▲	14.0	15.60	17.20	1
15▲	15.0	16.70	18.50	1
16▲	16.0	17.80	19.70	1
17	17.0	18.90	20.90	1
18▲	18.0	20.00	22.10	1
20▲	20.0	22.20	24.50	1
22▲	22.0	24.40	26.90	1
24▲	24.0	26.70	29.50	1
26▲	26.0	28.90	31.90	1
28▲	28.0	31.10	34.40	1
30▲	30.0	33.30	36.80	1
33▲	33.0	36.70	40.60	1
36▲	36.0	40.00	44.20	1
40▲	40.0	44.40	49.10	1
43	43.0	47.80	52.80	1

(Value) Nominal Breakdown Voltage	Reverse Stand Off Voltage VR (V)	Breakdown Voltage VBR (V) @ IT		Maximum Reverse Leakage IR @ VR (µA)
		Min.	Max.	
45▲	45.0	50.00	55.30	1
48▲	48.0	53.30	58.90	1
51▲	51.0	56.70	62.70	1
54▲	54.0	60.00	66.30	1
58▲	58.0	64.40	71.20	1
60▲	60.0	66.70	73.70	1
64	64.0	71.10	78.60	1
70	70.0	77.80	86.00	1
75	75.0	83.30	92.10	1
78	78.0	86.70	95.80	1
85	85.0	94.40	104.00	1
90	90.0	100.00	111.00	1
100▲	100.0	111.00	123.00	1
110	110.0	122.00	135.00	1
120	120.0	133.00	147.00	1
130	130.0	144.00	159.00	1
150	150.0	167.00	185.00	1
160	160.0	178.00	197.00	1
170▲	170.0	189.00	209.00	1
180	180.0	201.00	222.00	1
200▲	200.0	224.00	247.00	1
220	220.0	246.00	272.00	1
250▲	250.0	279.00	309.00	1
300	300.0	335.00	371.00	1
350▲	350.0	391.00	432.00	1
400▲	400.0	447.00	494.00	1
440▲	440.0	492.00	543.00	1

## 500 Watt TVS Diode DO-214AA (SMB) Package — SACB Series

- FEATURES:**
- Glass passivated chip junction
  - J Lead construction
  - Very low junction capacitance maximum of 45pF
  - High temperature soldering: 260°C/40 seconds at terminals
  - Matte tin plated leads



**SPECIFICATIONS:**

- Operating Junction and Storage Temperature Range: -65°C - 150°C
- Electrical specification: Tested @ 25°C

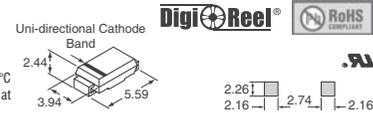
(Value) Nominal Breakdown Voltage	Marking Code	Reverse Stand Off Voltage VR (V)	Breakdown Voltage VBR (V) @ IT		Max. Reverse Leakage IR @ VR (µA)
			Min.	Max.	
5.0	SKE	5.0	7.60	10.0	300
12	SLE	12.0	13.30	19.0	5

Description	Voltage Range (Value) See Chart	Digi-Key Part No.†	Cut Tape Pricing			Digi-Key Part No.†	Tape & Reel Pricing 3,000
			1	10	100		
Uni-directional	5.0 - 12	SACB(Value)CT-ND	.65	6.03	50.72	SACB(Value)TR-ND	239.61/M

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

## 600 Watt TVS Diode DO-214AA (SMB) Package SMBJ, P6SMB Series

- FEATURES:**
- Glass passivated junction
  - J lead construction
  - Matte tin plated leads
- SPECIFICATIONS:**
- Voltage Tolerance: 5%
  - Operating Temperature: -65°C - 150°C (SMBJ and P6SMB Series); -55°C - 150°C (P6SMBJ Series)
  - High Temperature Soldering: 260°C for 40 seconds at terminals (SMBJ and P6SMB Series); 250°C for 10 seconds at terminals (P6SMBJ Series)
  - Electrical Specification: Tested at 25°C



(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▲	5.0	6.40	7.00	800	45▲	45.0	50.00	55.30	1
6.0▲	6.0	6.67	7.37	800	48▲	48.0	53.30	58.90	1
6.5▲	6.5	7.22	7.98	500	51▲	51.0	56.70	62.70	1
7.0▲	7.0	7.78	8.60	200	54▲	54.0	60.00	66.30	1
7.5▲	7.5	8.33	9.21	100	58▲	58.0	64.40	71.20	1
8.0▲	8.0	8.89	9.83	50	60▲	60.0	66.70	73.70	1
8.5	8.5	9.44	10.40	20	64	64.0	71.10	78.60	1
9.0	9.0	10.00	11.10	10	70▲	70.0	77.80	86.00	1
10▲	10.0	11.10	12.30	5	75▲	75.0	83.30	92.10	1
11	11.0	12.20	13.50	1	78	78.0	86.70	95.80	1
12▲	12.0	13.30	14.70	1	85	85.0	94.40	104.00	1
13▲	13.0	14.40	15.90	1	90	90.0	100.00	111.00	1
14▲	14.0	15.60	17.20	1	100	100.0	111.00	123.00	1
15▲	15.0	16.70	18.50	1	110	110.0	122.00	135.00	1
16	16.0	17.80	19.70	1	120	120.0	133.00	147.00	1
17▲	17.0	18.90	20.90	1	130	130.0	144.00	159.00	1
18▲	18.0	20.00	22.10	1	150▲	150.0	167.00	185.00	1
20▲	20.0	22.20	24.50	1	160	160.0	178.00	197.00	1
22▲	22.0	24.40	26.90	1	170▲	170.0	189.00	209.00	1
24▲	24.0	26.70	29.50	1	180	180.0	201.00	222.00	1
26▲	26.0	28.90	31.90	1	200▲	200.0	224.00	247.00	1
28▲	28.0	31.10	34.40	1	220	220.0	246.00	272.00	1
30▲	30.0	33.30	36.80	1	300▲	300.0	335.00	371.00	1
33▲	33.0	36.70	40.60	1	350▲	350.0	391.00	432.00	1
36▲	36.0	40.00	44.20	1	400▲	400.0	447.00	494.00	1
40▲	40.0	44.40	49.10	1	440	440.0	492.00	543.00	1
43	43.0	47.80	52.80	1					

(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	62▼	53.00	58.90	65.10	1‡
7.5▼	6.40	7.13	7.88	500	68▼	58.10	64.60	71.40	1‡
8.2▼	7.02	7.79	8.61	200	75★	64.10	71.30	78.80	1‡
9.1	7.78	8.65	9.55	50	82▼	70.10	77.90	86.10	1‡
10▼	8.55	9.50	10.50	10	91▼	77.80	86.50	95.50	1‡
11★	9.40	10.50	11.60	5	100▼	85.50	95.00	105.00	1‡
12▼	10.20	11.40	12.60	5	120§	102.00	114.00	126.00	1‡
13▼	11.10	12.40	13.70	1‡	130▼	111.00	124.00	137.00	1‡
15▼	12.80	14.30	15.80	1‡	150★	128.00	143.00	158.00	1‡
16▼	13.60	15.20	16.80	1‡	160§	136.00	152.00	168.00	1‡
18▼	15.30	17.10	18.90	1‡	180	154.00	171.00	189.00	1‡
20▼	17.10	19.00	21.00	1‡	200▼	171.00	190.00	210.00	1‡
22▼	18.80	20.90	23.10	1‡	220▼	185.00	209.00	231.00	1‡
24▼	20.50	22.80	25.20	1‡	250★	214.00	237.00	263.00	1‡
27★	23.10	25.70	28.40	1‡	300▼	256.00	285.00	315.00	1‡
30▼	25.60	28.50	31.50	1‡	350▼	300.00	332.00	368.00	1‡
33▼	28.20	31.40	34.70	1‡	400▼	342.00	380.00	420.00	1‡
36▼	30.80	34.20	37.80	1‡	440▼	376.00	418.00	462.00	1‡
39▼	33.30	37.10	41.00	1‡	480▼	408.00	456.00	504.00	1‡
43▼	36.80	40.90	45.20	1‡	510▼	434.00	485.00	535.00	1‡
47▼	40.20	44.70	49.40	1‡	540§	477.00	503.50	556.50	1‡
51▼	43.60	48.50	53.60	1‡	550▼	495.00	522.50	577.50	1‡
56▼	47.80	53.20	58.80	1‡					

Series	Description	Voltage Range (Value) See Chart	Digi-Key Part No.†	Cut Tape Pricing			Digi-Key Part No.†	Tape and Reel Pricing 3,000
				1	10	100		
SMBJ	Uni-directional TVS	5.0 - 200	SMBJ(Value)ALFTR-ND	.44	4.02	33.81	SMBJ(Value)ALFTR-ND	159.74/M
	Uni-directional TVS	220 - 400	SMBJ(Value)ALFCT-ND	.61	5.58	46.92	SMBJ(Value)ALFTR-ND	221.68/M
	Bi-directional TVS	5.0 - 200	SMBJ(Value)CALFCT-ND	.49	4.44	37.26	SMBJ(Value)CALFTR-ND	176.04/M
	Bi-directional TVS	220 - 440	SMBJ(Value)CALFCT-ND	.68	6.20	52.10	SMBJ(Value)CALFTR-ND	246.13/M
P6SMB	Uni-directional TVS	6.8 - 200	P6SMB(Value)ALFCT-ND	.44	4.02	33.81	P6SMB(Value)ALFTR-ND	159.74/M
	Uni-directional TVS	220 - 550	P6SMB(Value)ALFCT-ND	.61	5.58	46.92	P6SMB(Value)ALFTR-ND	221.68/M
	Bi-directional TVS	6.8 - 200	P6SMB(Value)CALFCT-ND	.49	4.44	37.26	P6SMB(Value)CALFTR-ND	176.04/M
	Bi-directional TVS	220 - 550	P6SMB(Value)CALFCT-ND	.68	6.20	52.10	P6SMB(Value)CALFTR-ND	246.13/M

† For complete part number, substitute (Value) from the Value Chart. § Values not stocked by Digi-Key in the P6SMB series. Note: Bidirectional type having Vr of 10V and less, the Ir limit is double.

- ▲ SMBJ-A-KIT-ND **NEW!** 36 values, 5 each of parts indicated (180 pieces) ..... \$39.39
- SMBJ-CA-KIT-ND **NEW!** 36 values, 5 each of parts indicated (180 pieces) ..... \$41.00
- ★ P6SMB-A-KIT-ND **NEW!** 36 values, 5 each of parts indicated (180 pieces) ..... \$39.39
- ▼ P6SMB-CA-KIT-ND **NEW!** 36 values, 5 each of parts indicated (180 pieces) ..... \$41.00

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