

BOURNS Discrete TVS Chip Diodes

Bourns has released a new series of ESD/EFT/Surge Protection products for general applications. These Transient Voltage Suppressor Diodes for surge and ESD protection applications are available in compact chip package size formats. The following compact chip packages are available: DO-214AC (SMA), DO-214AA (SMB), and DO-214AB (SMC).

Specifications:

- Operating Temp. Range: -55°C to +150°C
- Storage Temp. Range: -55°C to +175°C

Applications:

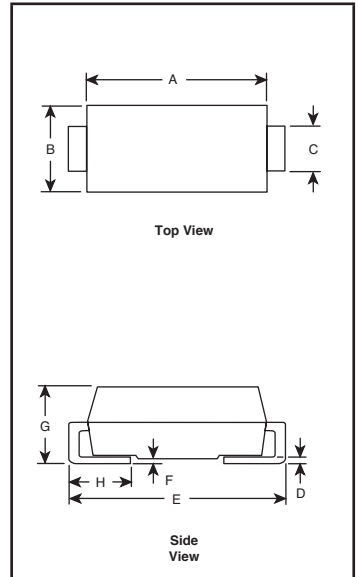
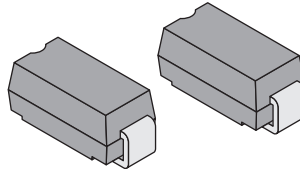
- IEC 61000-4-2 ESD (Min. Level 4)
- IED 61000-4-4 EFT
- IED 61000-4-5 Surge

Features:

- Standoff Voltage: 5.0 to 170 volts
- Easy to handle



RoHS Compliant



Device Type	
U	Unidirectional
B	Bidirectional

Part Number Pricing						
Type	1	100	500	1000	Reel Qty.	Price Each
SMAJ-A	.33	.18	.15	.125	5000	.095
SMAJ-CA	.34	.19	.16	.13	5000	.10
SMBJ-A	.33	.18	.15	.125	3000	.095

SMAJ SERIES

MOUSER STOCK NO.	Bourns Part No.	Device Type	Breakdown V _{BR} (Volts)		V _{RWM} (Volts)	V _{RSM} (Volts)
			Min.	Max.		
652-SMAJ5.0A	SMAJ5.0A	U	6.40	7.00	5	9.2
652-SMAJ6.0A	SMAJ6.0A	U	6.67	7.37	6	10.3
652-SMAJ6.5A	SMAJ6.5A	U	7.22	7.98	6.5	11.2
652-SMAJ7.0A	SMAJ7.0A	U	7.78	8.60	7	12.0
652-SMAJ7.5A	SMAJ7.5A	U	8.33	9.21	7.5	12.9
652-SMAJ8.0A	SMAJ8.0A	U	8.89	9.83	8	13.6
652-SMAJ8.5A	SMAJ8.5A	U	9.44	10.40	8.5	14.4
652-SMAJ9.0A	SMAJ9.0A	U	10.00	11.10	9	15.4
652-SMAJ10A	SMAJ10A	U	11.1	12.3	10	17.0
652-SMAJ11A	SMAJ11A	U	12.2	13.2	11	18.2
652-SMAJ12A	SMAJ12A	U	13.3	14.7	12	19.9
652-SMAJ13A	SMAJ13A	U	14.4	15.9	13	24.2
652-SMAJ14A	SMAJ14A	U	15.6	17.2	14	23.2
652-SMAJ15A	SMAJ15A	U	16.7	18.5	15	24.4
652-SMAJ16A	SMAJ16A	U	17.8	19.7	16	26.0
652-SMAJ17A	SMAJ17A	U	18.9	20.9	17	27.6
652-SMAJ18A	SMAJ18A	U	20.0	22.1	18	29.2
652-SMAJ20A	SMAJ20A	U	22.2	24.5	20	32.4
652-SMAJ22A	SMAJ22A	U	24.4	26.9	22	35.5
652-SMAJ24A	SMAJ24A	U	26.7	29.5	24	38.9
652-SMAJ26A	SMAJ26A	U	28.9	31.9	26	42.1
652-SMAJ28A	SMAJ28A	U	31.1	34.4	28	45.4
652-SMAJ30A	SMAJ30A	U	33.3	36.8	30	48.4
652-SMAJ33A	SMAJ33A	U	36.7	40.6	33	53.3
652-SMAJ36A	SMAJ36A	U	40	44.2	36	58.1
652-SMAJ40A	SMAJ40A	U	44.4	49.1	40	64.5
652-SMAJ43A	SMAJ43A	U	47.8	52.8	43	69.4
652-SMAJ45A	SMAJ45A	U	50	55.3	45	72.7
652-SMAJ48A	SMAJ48A	U	53.3	58.9	48	77.4
652-SMAJ51A	SMAJ51A	U	56.7	62.7	51	82.4
652-SMAJ54A	SMAJ54A	U	60	66.3	54	87.1
652-SMAJ58A	SMAJ58A	U	64.4	71.2	58	93.6
652-SMAJ60A	SMAJ60A	U	66.7	73.7	60	96.8
652-SMAJ64A	SMAJ64A	U	71.1	78.6	64	103
652-SMAJ70A	SMAJ70A	U	77.8	86.0	70	113
652-SMAJ75A	SMAJ75A	U	83.3	92.1	75	121
652-SMAJ78A	SMAJ78A	U	86.7	95.8	78	126
652-SMAJ85A	SMAJ85A	U	94.4	104	85	137
652-SMAJ90A	SMAJ90A	U	100	111	90	146
652-SMAJ100A	SMAJ100A	U	111	123	100	162
652-SMAJ110A	SMAJ110A	U	122	135	110	177
652-SMAJ120A	SMAJ120A	U	133	147	120	193
652-SMAJ130A	SMAJ130A	U	144	159	130	209
652-SMAJ150A	SMAJ150A	U	167	185	150	243
652-SMAJ160A	SMAJ160A	U	178	197	160	259
652-SMAJ170A	SMAJ170A	U	189	209	170	275
652-SMAJ5.0CA	SMAJ5.0CA	B	6.40	7.00	5.0	9.2
652-SMAJ6.0CA	SMAJ6.0CA	B	6.67	7.37	6.0	10.3
652-SMAJ6.5CA	SMAJ6.5CA	B	7.22	7.98	6.5	11.2
652-SMAJ7.0CA	SMAJ7.0CA	B	7.78	8.60	7.0	12.0
652-SMAJ7.5CA	SMAJ7.5CA	B	8.33	9.21	7.5	12.9
652-SMAJ8.0CA	SMAJ8.0CA	B	8.89	9.83	8.0	13.6
652-SMAJ8.5CA	SMAJ8.5CA	B	9.44	10.4	8.5	14.4
652-SMAJ9.0CA	SMAJ9.0CA	B	10.0	11.1	9.0	15.4
652-SMAJ10CA	SMAJ10CA	B	11.1	12.3	10.0	17.0
652-SMAJ11CA	SMAJ11CA	B	12.2	13.2	11.0	18.2
652-SMAJ12CA	SMAJ12CA	B	13.3	14.7	12.0	19.9
652-SMAJ13CA	SMAJ13CA	B	14.4	15.9	13.0	24.2
652-SMAJ14CA	SMAJ14CA	B	15.6	17.2	14.0	23.2
652-SMAJ15CA	SMAJ15CA	B	16.7	18.5	15.0	24.4
652-SMAJ16CA	SMAJ16CA	B	17.8	19.7	16.0	26.0
652-SMAJ17CA	SMAJ17CA	B	18.9	20.9	17.0	27.6
652-SMAJ18CA	SMAJ18CA	B	20.0	22.1	18.0	29.2
652-SMAJ20CA	SMAJ20CA	B	22.2	24.5	20.0	32.4
652-SMAJ22CA	SMAJ22CA	B	24.4	26.9	22.0	35.5
652-SMAJ24CA	SMAJ24CA	B	26.7	29.5	24.0	38.9
652-SMAJ26CA	SMAJ26CA	B	28.9	31.9	26.0	42.1
652-SMAJ28CA	SMAJ28CA	B	31.1	34.4	28.0	45.4

SMAJ SERIES (CONT.)

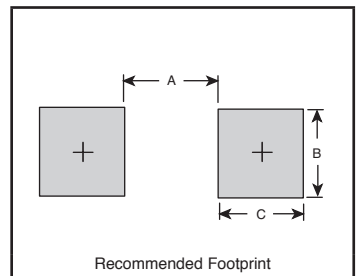
MOUSER STOCK NO.	Bourns Part No.	Device Type	Breakdown V _{BR} (Volts)		V _{RWM} (Volts)	V _{RSM} (Volts)
			Min.	Max.		
652-SMAJ30CA	SMAJ30CA	B	33.3	36.8	30	48.4
652-SMAJ33CA	SMAJ33CA	B	36.7	40.6	33	53.3
652-SMAJ36CA	SMAJ36CA	B	40	44.2	36	58.1
652-SMAJ40CA	SMAJ40CA	B	44.4	49.1	40	64.5
652-SMAJ43CA	SMAJ43CA	B	47.8	52.8	43	69.4
652-SMAJ45CA	SMAJ45CA	B	50	55.3	45	72.7
652-SMAJ48CA	SMAJ48CA	B	53.3	58.9	48	77.4
652-SMAJ51CA	SMAJ51CA	B	56.7	62.7	51	82.4
652-SMAJ54CA	SMAJ54CA	B	60	66.3	54	87.1
652-SMAJ58CA	SMAJ58CA	B	64.4	71.2	58	93.6
652-SMAJ60CA	SMAJ60CA	B	66.7	73.7	60	96.8
652-SMAJ64CA	SMAJ64CA	B	71.1	78.6	64	103
652-SMAJ70CA	SMAJ70CA	B	77.8	86.0	70	113
652-SMAJ75CA	SMAJ75CA	B	83.3	92.1	75	121
652-SMAJ78CA	SMAJ78CA	B	86.7	95.8	78	126
652-SMAJ85CA	SMAJ85CA	B	94.4	104	85	137
652-SMAJ90CA	SMAJ90CA	B	100	111	90	146
652-SMAJ100CA	SMAJ100CA	B	111	123	100	162
652-SMAJ110CA	SMAJ110CA	B	122	135	110	177
652-SMAJ120CA	SMAJ120CA	B	133	147	120	193
652-SMAJ130CA	SMAJ130CA	B	144	159	130	209
652-SMAJ150CA	SMAJ150CA	B	167	185	150	243
652-SMAJ160CA	SMAJ160CA	B	178	197	160	259
652-SMAJ170CA	SMAJ170CA	B	189	209	170	275

SMBJ SERIES

MOUSER STOCK NO.	Bourns Part No.	Device Type	Breakdown V _{BR} (Volts)		V _{RWM} (Volts)	V _{RSM} (Volts)
			Min.	Max.		
652-SMBJ5.0A	SMBJ5.0A	U	6.40	7.25	5.0	9.2
652-SMBJ6.0A	SMBJ6.0A	U	6.67	7.67	6.0	10.3
652-SMBJ6.5A	SMBJ6.5A	U	7.22	8.30	6.5	11.2
652-SMBJ7.0A	SMBJ7.0A	U	7.78	8.95	7.0	12.0
652-SMBJ7.5A	SMBJ7.5A	U	8.33	9.58	7.5	12.9
652-SMBJ8.0A	SMBJ8.0A	U	8.89	10.2	8.0	13.6
652-SMBJ8.5A	SMBJ8.5A	U	9.44	10.8	8.5	14.4
652-SMBJ9.0A	SMBJ9.0A	U	10.0	11.5	9.0	15.4
652-SMBJ10A	SMBJ10A	U	11.1	12.8	10	17.0
652-SMBJ11A	SMBJ11A	U	12.2	14.4	11	18.2
652-SMBJ12A	SMBJ12A	U	13.3	15.3	12	19.9
652-SMBJ13A	SMBJ13A	U	14.4	16.5	13	21.5
652-SMBJ14A	SMBJ14A	U	15.6	17.9	14	23.2
652-SMBJ15A	SMBJ15A	U	16.7	19.2	15	24.2
652-SMBJ16A	SMBJ16A	U	17.8	20.5	16	26.0
652-SMBJ17A	SMBJ17A	U	18.9	21.7	17	27.6
652-SMBJ18A	SMBJ18A	U	20.0	23.3	18	29.2
652-SMBJ20A	SMBJ20A	U	22.2	25.5	20	32.4
652-SMBJ22A	SMBJ22A	U	24.4	28.0	22	35.5
652-SMBJ24A	SMBJ24A	U	26.7	30.7	24	38.9
652-SMBJ26A	SMBJ26A	U	28.9	32.2	26	42.1
652-SMBJ28A	SMBJ28A	U	31.1	35.8	28	45.4
652-SMBJ30A	SMBJ30A	U	33.3	38.3	30	48.4
652-SMBJ33A	SMBJ33A	U	36.7	42.2	33	53.3
652-SMBJ36A	SMBJ36A	U	40	46.0	36	58.1
652-SMBJ40A	SMBJ40A	U	44.4	51.1	40	64.5
652-SMBJ43A	SMBJ43A	U	47.8	54.9	43	69.4
652-SMBJ45A	SMBJ45A	U	50	57.5	45	72.7
652-SMBJ48A	SMBJ48A	U	53.3	61.3	48	77.4
652-SMBJ51A	SMBJ51A	U	56.7	65.2	51	82.4
652-SMBJ54A	SMBJ54A	U	60	69	54	87.1
652-SMBJ58A	SMBJ58A	U	64.4	74.6	58	93.6
652-SMBJ60A	SMBJ60A	U	66.7	76.7	60	96.8
652-SMBJ64A	SMBJ64A	U	71.1	81.8	64	103
652-SMBJ70A	SMBJ70A	U	77.8	89.5	70	113
652-SMBJ75A	SMBJ75A	U	83.3	95.8	75	121
652-SMBJ78A	SMBJ78A	U	86.7	99.7	78	126
652-SMBJ85A	SMBJ85A	U	94.4	109	85	137

SMAJ Dimensions (mm)	
Dimension	SMA (DO-214AC)
A	4.06 - 4.57
B	2.29 - 2.92
C	1.27 - 1.63
D	0.15 - 0.31
E	4.83 - 5.59
F	0.05 - 0.20
G	2.01 - 2.62
H	0.76 - 1.52

SMBJ Dimensions (mm)	
Dimension	SMB (DO-214AA)
A	4.06 - 4.57
B	3.30 - 3.94
C	1.96 - 2.21
D	0.15 - 0.31
E	5.21 - 5.59
F	0.05 - 0.20
G	2.01 - 2.62
H	0.76 - 1.52



SMAJ Dimensions (mm)	
Dimension	SMA (DO-214AC)
A (max.)	2.7
B (min.)	2.1
C (min.)	1.27

SMBJ Dimensions (mm)	
Dimension	SMA (DO-214AA)
A (max.)	2.69
B (min.)	2.1
C (min.)	1.27