

BOURNS Discrete TVS Chip Diodes

BOURNS®

Bourns Transient Protection

RoHS Compliant **This product is RoHS compliant.**

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)
- IEC 61000-4-4 EFT
- IEC 61000-4-5 Surge

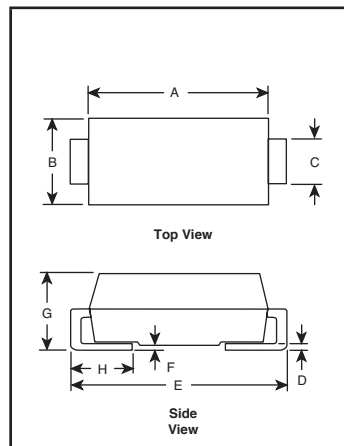
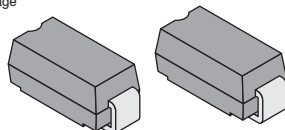
Features:

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



RoHS Compliant

Device Type	
U	Unidirectional
B	Bidirectional



SMBJ SERIES (CONT.)

MOUSER STOCK NO.	Bourns Part No.	Device Type	Breakdown V _{BR} (Volts)		V _{RWM} (Volts)	V _{RSM} (Volts)
			Min.	Max.		
652-SMBJ90A	SMBJ90A	U	100	116	90	146
652-SMBJ100A	SMBJ100A	U	111	128	100	162
652-SMBJ110A	SMBJ110A	U	122	140	110	177
652-SMBJ120A	SMBJ120A	U	133	153	120	193
652-SMBJ130A	SMBJ130A	U	144	165	130	209
652-SMBJ150A	SMBJ150A	U	167	192	150	243
652-SMBJ160A	SMBJ160A	U	178	205	160	259
652-SMBJ170A	SMBJ170A	U	189	218	170	275
652-SMBJ5.0CA	SMBJ5.0CA	B	6.40	7.25	5.0	9.2
652-SMBJ6.0CA	SMBJ6.0CA	B	6.67	7.67	6.0	10.3
652-SMBJ6.5CA	SMBJ6.5CA	B	7.22	8.30	6.5	11.2
652-SMBJ7.0CA	SMBJ7.0CA	B	7.78	8.95	7.0	12.0
652-SMBJ7.5CA	SMBJ7.5CA	B	8.33	9.58	7.5	12.9
652-SMBJ8.0CA	SMBJ8.0CA	B	8.89	10.2	8.0	13.6
652-SMBJ8.5CA	SMBJ8.5CA	B	9.44	10.8	8.5	14.4
652-SMBJ9.0CA	SMBJ9.0CA	B	10.0	11.5	9.0	15.4
652-SMBJ10CA	SMBJ10CA	B	11.1	12.8	10	17.0
652-SMBJ11CA	SMBJ11CA	B	12.2	14.4	11	18.2
652-SMBJ12CA	SMBJ12CA	B	13.3	15.3	12	19.9
652-SMBJ13CA	SMBJ13CA	B	14.4	16.5	13	21.5
652-SMBJ14CA	SMBJ14CA	B	15.6	17.9	14	23.2
652-SMBJ15CA	SMBJ15CA	B	16.7	19.2	15	24.4
652-SMBJ16CA	SMBJ16CA	B	17.8	20.5	16	26.0
652-SMBJ17CA	SMBJ17CA	B	18.9	21.7	17	27.6
652-SMBJ18CA	SMBJ18CA	B	20.0	23.3	18	29.2
652-SMBJ20CA	SMBJ20CA	B	22.2	25.0	20	32.4
652-SMBJ22CA	SMBJ22CA	B	24.4	28.0	22	35.5
652-SMBJ24CA	SMBJ24CA	B	26.7	30.7	24	38.9
652-SMBJ26CA	SMBJ26CA	B	28.9	32.2	26	42.1
652-SMBJ28CA	SMBJ28CA	B	31.1	35.8	28	45.4
652-SMBJ30CA	SMBJ30CA	B	33.3	38.3	30	48.4
652-SMBJ33CA	SMBJ33CA	B	36.7	42.2	33	53.3
652-SMBJ36CA	SMBJ36CA	B	40	46.0	36	58.1
652-SMBJ40CA	SMBJ40CA	B	44.4	51.1	40	64.5
652-SMBJ43CA	SMBJ43CA	B	47.8	54.9	43	69.4
652-SMBJ45CA	SMBJ45CA	B	50	57.5	45	72.7
652-SMBJ48CA	SMBJ48CA	B	53.3	61.3	48	77.4
652-SMBJ51CA	SMBJ51CA	B	56.7	65.2	51	82.4
652-SMBJ54CA	SMBJ54CA	B	60	69	54	87.1
652-SMBJ58CA	SMBJ58CA	B	64.4	74.6	58	93.6
652-SMBJ60CA	SMBJ60CA	B	66.7	76.7	60	96.8
652-SMBJ64CA	SMBJ64CA	B	71.1	81.8	64	103
652-SMBJ70CA	SMBJ70CA	B	77.8	89.5	70	113
652-SMBJ75CA	SMBJ75CA	B	83.3	95.8	75	121
652-SMBJ78CA	SMBJ78CA	B	86.7	99.7	78	126
652-SMBJ85CA	SMBJ85CA	B	94.4	109	85	137
652-SMBJ90CA	SMBJ90CA	B	100	116	90	146
652-SMBJ100CA	SMBJ100CA	B	111	128	100	162
652-SMBJ110CA	SMBJ110CA	B	122	140	110	177
652-SMBJ120CA	SMBJ120CA	B	133	153	120	193
652-SMBJ130CA	SMBJ130CA	B	144	165	130	209
652-SMBJ150CA	SMBJ150CA	B	167	192	150	243
652-SMBJ160CA	SMBJ160CA	B	178	205	160	259
652-SMBJ170CA	SMBJ170CA	B	189	218	170	275

SMCJ SERIES

652-SMCJ5.0A	SMCJ5.0A	U	6.4	7.23	5	9.2
652-SMCJ6.0A	SMCJ6.0A	U	6.67	7.67	6	10.3
652-SMCJ6.5A	SMCJ6.5A	U	7.22	8.3	6.5	11.2
652-SMCJ7.0A	SMCJ7.0A	U	7.78	8.95	7	12
652-SMCJ7.5A	SMCJ7.5A	U	8.33	9.58	7.5	12.9
652-SMCJ8.0A	SMCJ8.0A	U	8.89	10.2	8	13.6
652-SMCJ8.5A	SMCJ8.5A	U	9.44	10.8	8.5	14.4
652-SMCJ9.0A	SMCJ9.0A	U	10	11.5	9	15.4
652-SMCJ10A	SMCJ10A	U	11.1	12.8	10	17
652-SMCJ12A	SMCJ12A	U	13.3	15.3	12	19.9
652-SMCJ13A	SMCJ13A	U	14.4	16.5	13	21.5
652-SMCJ14A	SMCJ14A	U	15.6	17.9	14	23.2
652-SMCJ15A	SMCJ15A	U	16.7	19.2	15	24.4
652-SMCJ16A	SMCJ16A	U	17.8	20.5	16	26
652-SMCJ17A	SMCJ17A	U	18.9	21.7	17	27.6
652-SMCJ18A	SMCJ18A	U	20	23.3	18	29.2
652-SMCJ20A	SMCJ20A	U	22.2	25.5	20	32.4
652-SMCJ22A	SMCJ22A	U	24.4	28	22	35.5
652-SMCJ24A	SMCJ24A	U	26.7	30.7	24	38.9
652-SMCJ26A	SMCJ26A	U	28.9	32.2	26	42.1
652-SMCJ28A	SMCJ28A	U	31.1	35.8	28	45.4
652-SMCJ30A	SMCJ30A	U	33.3	38.3	30	48.4

SMCJ SERIES (CONT.)

MOUSER STOCK NO.	Bourns Part No.	Device Type	Breakdown V _{BR} (Volts)		V _{RWM} (Volts)	V _{RSM} (Volts)
			Min.	Max.		
652-SMCJ33A	SMCJ33A	U	36.7	42.2	33	53.3
652-SMCJ36A	SMCJ36A	U	40	46	36	58.1
652-SMCJ40A	SMCJ40A	U	44.4	51.1	40	64.5
652-SMCJ43A	SMCJ43A	U	47.8	54.9	43	69.4
652-SMCJ45A	SMCJ45A	U	50	57.5	45	72.7
652-SMCJ48A	SMCJ48A	U	53.3	61.3	48	77.4
652-SMCJ51A	SMCJ51A	U	56.7	65.2	51	82.4
652-SMCJ54A	SMCJ54A	U	60	69	54	87.1
652-SMCJ58A	SMCJ58A	U	64.4	74.6	58	93.6
652-SMCJ60A	SMCJ60A	U	66.7	76.7	60	96.8
652-SMCJ64A	SMCJ64A	U	71.1	81.8	64	103
652-SMCJ70A	SMCJ70A	U	77.8	89.5	70	113
652-SMCJ75A	SMCJ75A	U	83.3	95.8	75	121
652-SMCJ78A	SMCJ78A	U	86.7	99.7	78	126
652-SMCJ85A	SMCJ85A	U	94.4	108.2	85	137
652-SMCJ90A	SMCJ90A	U	100	115.5	90	146
652-SMCJ100A	SMCJ100A	U	111	128	100	162
652-SMCJ110A	SMCJ110A	U	122	140	110	177
652-SMCJ120A	SMCJ120A	U	133	153	120	193
652-SMCJ130A	SMCJ130A	U	144	165	130	209
652-SMCJ150A	SMCJ150A	U	167	192	150	243
652-SMCJ160A	SMCJ160A	U	178	205	160	259
652-SMCJ170A	SMCJ170A	U	189	217.5	170	275
652-SMCJ5.0CA	SMCJ5.0CA	B	6.4	7.23	5	9.2
652-SMCJ6.0CA	SMCJ6.0CA	B	6.67	7.67	6	10.3
652-SMCJ6.5CA	SMCJ6.5CA	B	7.22	8.3	6.5	11.2
652-SMCJ7.0CA	SMCJ7.0CA	B	7.78	8.95	7	12
652-SMCJ7.5CA	SMCJ7.5CA	B	8.33	9.58	7.5	12.9
652-SMCJ8.0CA	SMCJ8.0CA	B	8.89	10.2	8	13.6
652-SMCJ8.5CA	SMCJ8.5CA	B	9.44	10.8	8.5	14.4
652-SMCJ9.0CA	SMCJ9.0CA	B	10	11.5	9	15.4
652-SMCJ10CA	SMCJ10CA	B	11.1	12.8	10	17
652-SMCJ11CA	SMCJ11CA	B	12.2	14.4	11	18.2
652-SMCJ12CA	SMCJ12CA	B	13.3	15.3	12	19.9
652-SMCJ13CA	SMCJ13CA	B	14.4	16.5	13	21.5
652-SMCJ14CA	SMCJ14CA	B	15.6	17.9	14	23.2
652-SMCJ15CA	SMCJ15CA	B	16.7	19.2	15	24.4
652-SMCJ16CA	SMCJ16CA	B	17.8	20.5	16	26
652-SMCJ17CA	SMCJ17CA	B	18.9	21.7	17	27.6
652-SMCJ18CA	SMCJ18CA	B	20	23.3	18	29.2
652-SMCJ20CA	SMCJ20CA	B	22.2	25.5	20	32.4
652-SMCJ22CA	SMCJ22CA	B	24.4	28	22	35.5
652-SMCJ24CA	SMCJ24CA	B	26.7	30.7	24	38.9
652-SMCJ26CA	SMCJ26CA	B	28.9	32.2	26	42.1
652-SMCJ28CA	SMCJ28CA	B	31.1	35.8	28	45.4
652-SMCJ30CA	SMCJ30CA	B	33.3	38.3	30	48.4
652-SMCJ33CA	SMCJ33CA	B	36.7	42.2	33	53.3
652-SMCJ36CA	SMCJ36CA	B	40	46	36	58.1
652-SMCJ40CA	SMCJ40CA	B	44.4	51.1	40	64.5
652-SMCJ43CA	SMCJ43CA	B	47.8	54.9	43	69.4
652-SMCJ45CA	SMCJ45CA	B	50	57.5	45	72.7
652-SMCJ48CA	SMCJ48CA	B	53.3	61.3	48	77.4
652-SMCJ51CA	SMCJ51CA	B	56.7	65.2	51	82.4
652-SMCJ54CA	SMCJ54CA	B	60	69	54	87.1
652-SMCJ58CA	SMCJ58CA	B	64.4	74.6	58	93.6
652-SMCJ60CA	SMCJ60CA	B	66.7	76.7	60	96.8
652-SMCJ64CA	SMCJ64CA	B	71.1	81.8	64	103
652-SMCJ70CA	SMCJ70CA	B	77.8	89.5	70	113
652-SMCJ75CA	SMCJ75CA	B	83.3	95.8	75	121
652-SMCJ78CA	SMCJ78CA	B	86.7	99.7	78	126
652-SMCJ85CA	SMCJ85CA	B	94.4	108.2	85	137
652-SMCJ90CA	SMCJ90CA	B	100	115.5	90	146
652-SMCJ100CA	SMCJ100CA	B	111	128	100	162
652-SMCJ110CA	SMCJ110CA	B	122	140	110	177
652-SMCJ120CA	SMCJ120CA	B	133	153	120	193
652-SMCJ130CA	SMCJ130CA	B	144	165	130	209
652-SMCJ150CA	SMCJ150CA	B	167	192	150	243
652-SMCJ160CA	SMCJ160CA	B	178	205	160	259
652-SMCJ170CA	SMCJ170CA	B	189	217.5	170	275

SMLJ SERIES

MOUSER STOCK NO.	Bourns Part No.	Device Type	Breakdown V _{BR} (Volts)		V _{RWM} (Volts)	V _{RSM} (Volts)
			Min.	Max.		
652-SMLJ20A	SMLJ20A	U	22.2	24.5	20	32.4



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

SMCJ Dimensions (mm)	
Dimension	SMB (DO-214AB)
A	6.60 - 7.11