

# AVX Chip Diodes



Transient Protection

AVX

## SD SERIES SCHOTTKY BARRIER RECTIFIER LEAD-LESS CHIP FORM

**Features:**

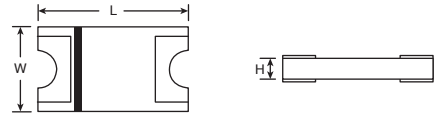
- Lead-less chip form
- Low power loss/high efficiency
- Low Vf
- High current capability
- UL 94V-0 class package material
- Halogen free

**Applications:**

- Switch mode power supplies
- High frequency rectification
- Portable battery powered devices
- Reverse bias protection



Series	DIMENSIONS: mm (in.)		
	L	W	H
0603	1.6±0.10	0.90±0.10 - (0.035±0.004)	0.60 (0.024)
0805	2.00±0.10 - (0.079±0.004)	1.30±0.10 - (0.051±0.004)	0.80 (0.031)
1206	3.40±0.20 - (0.134±0.008)	1.90±0.20 - (0.075±0.008)	0.96 (0.038)
2010	4.5±0.10 - (0.177±0.004)	2.20±0.10 - (0.087±0.004)	0.96 (0.038)
2114	5.20±0.10 - (0.205±0.004)	3.60±0.10 - (0.142±0.004)	1.05±0.15 - (0.041±0.006)
3220	8.0±0.10 - (0.315±0.004)	5.0±0.10 - (0.197±0.004)	1.05±0.10 - (0.041±0.004)



For quantities greater than listed, call for quote.

MOUSER STOCK NO.	AVX Part No.	Max Reverse Voltage VRRM (V)	Max Forward Current IF (A)	Max Peak Forward Surge Current IFSM (A)	Reverse Current IRRM (mA)		Price Each				Reel Qty.	Price Per Piece
					Typ	Max	1	100	500	1000		
0603												
581-SD0603S040S0R2	SD0603S040S0R2	40	0.2	2	0.0005	0.0010	.25	.149	.121	.093	3000	.081
0805												
581-SD0805S020S0R5	SD0805S020S0R5	20	0.5	5.0	0.015	0.1	.30	.175	.143	.11	3000	.096
581-SD0805S020S1R0	SD0805S020S1R0	20	1.0	10.0	0.028	0.2	.26	.18	.149	.111	3000	.099
581-SD0805S040S0R5	SD0805S040S0R5	40	0.5	5.0	0.015	0.1	.30	.175	.143	.11	3000	.096
581-SD0805S040S0R1	SD0805S040S0R1	40	1.0	20.0	0.004	0.03	.32	.192	.156	.12	3000	.105
1206												
581-SD1206T020S1R0	SD1206T020S1R0	20	1.0	20	0.015	0.2	.30	.207	.171	.128	3000	.114
581-SD1206S020S1R0	SD1206S020S1R0	20	1.0	20	0.015	0.2	.29	.201	.166	.124	3000	.111
581-SD1206S040S0R5	SD1206S040S0R5	40	0.5	15	0.01	0.05	.27	.183	.151	.113	3000	.101
581-SD1206T040S1R0	SD1206T040S1R0	40	1.0	20	0.015	0.2	.30	.207	.171	.128	3000	.114
581-SD1206S040S1R0	SD1206S040S1R0	40	1.0	20	0.015	0.2	.29	.201	.166	.124	3000	.111
581-SD1206T040S2R0	SD1206T040S2R0	40	2.0	40	0.03	0.2	.34	.231	.191	.143	3000	.128
581-SD1206S040S2R0	SD1206S040S2R0	40	2.0	40	0.03	0.2	.33	.225	.186	.139	3000	.124
581-SD1206S100S1R0	SD1206S100S1R0	100	1.0	20	0.015	0.2	.32	.222	.183	.137	3000	.123
2010												
581-SD2010S020S1R0	SD2010S020S1R0	20	1	30	0.02	0.2	.31	.213	.176	.132	3000	.118
581-SD2010S040S2R0	SD2010S040S2R0	40	2	50	0.025	0.2	.35	.237	.196	.147	3000	.131
581-SD2010S040S3R0	SD2010S040S3R0	40	3	80	0.02	0.2	.36	.246	.203	.152	3000	.136
581-SD2010S100S1R0	SD2010S100S1R0	100	1	30	0.02	0.2	.38	.258	.213	.16	3000	.142
581-SD2010S040S1R0	SD2010S040S1R0	100	1	30	0.02	0.2	.31	.213	.176	.132	3000	.118
2114												
581-SD2114S040S5R0	SD2114S040S5R0	40	5	105	0.045	0.5	.53	.397	.336	.259	5000	.215
581-SD2114S040S8R0	SD2114S040S8R0	40	8	135	0.045	0.5	.59	.453	.386	.309	5000	.253
3220												
581-SD3220S040S3R0	SD3220S040S3R0	40	3	100	0.025	0.5	.52	.397	.338	.271	3000	.238
581-SD3220S100S5R0	SD3220S100S5R0	100	5	130	0.045	0.5	.68	.524	.447	.358	3000	.302

## TRANSIENT SUPPRESSION DIODES GENERAL PURPOSE

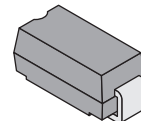
The SMAJ, SMBJ and SMCJ Series are a popular format of general purpose transient voltage suppression diodes. They are based on low leakage, high reliability, but low cost glass passivated chip rectifier technology.

**Features:**

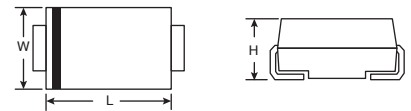
- Glass passivated chip
- Low leakage
- Excellent clamping capability
- Very fast response time
- Halogen Free
- Lead-Free Terminations

**Applications:**

- Consumer
- Industrial
- Telecom
- Computer



Series	DIMENSIONS: mm (in.)		
	L	W	H
SMA/DO-214AC	0.181 (4.60) - 0.157 (4.00)	0.115 (2.92) - 0.090 (2.28)	0.096 (2.43) - 0.078 (1.99)
SMB/DO-214AA	0.187 (4.75) - 0.167 (4.24)	0.150 (3.80) - 0.130 (3.30)	0.096 (2.43) - 0.079 (2.00)
SMC/DO-214AB	0.280 (7.12) - 0.260 (6.60)	0.245 (6.23) - 0.220 (5.59)	0.103 (2.62) - 0.079 (2.02)



For quantities greater than listed, call for quote.

MOUSER STOCK NO.	AVX Part No.	Device Type	Breakdown VBR (Volts)		VRWM (Volts)	VRSM (Volts)	Price Each				Reel Qty.	Price Per Piece
			Min.	Max.			1	100	500	1000		
<b>SMAJ Series - 400 Watt</b>												
581-SMAJ5.0A	SMAJ5.0A	U	6.4	7.00	5	9.2	.30	.205	.17	.127	7500	.107
581-SMAJ5.0CA	SMAJ5.0CA	B	6.4	7.00	5	9.2	.32	.22	.182	.136	7500	.114
581-SMAJ12A	SMAJ12A	U	13.3	14.7	12	19.9	.30	.205	.17	.127	7500	.107
581-SMAJ12CA	SMAJ12CA	B	13.3	14.7	12	19.9	.32	.22	.182	.136	7500	.114
581-SMAJ18CA	SMAJ18CA	B	20	22.1	18	29.2	.32	.22	.182	.136	7500	.114
581-SMAJ26CA	SMAJ26CA	B	28.9	31.9	26	42.1	.32	.22	.182	.136	7500	.114
581-SMAJ90A	SMAJ90A	U	100	111	90	146	.30	.205	.17	.127	7500	.107
581-SMAJ90CA	SMAJ90CA	B	100	111	90	146	.32	.22	.182	.136	7500	.114
581-SMAJ140CA	SMAJ140CA	B	155	171	140	227	.32	.22	.182	.136	7500	.114
581-SMAJ220CA	SMAJ220CA	B	246	272	220	356	.50	.375	.317	.245	7500	.203
<b>SMBJ Series - 600 Watt</b>												
581-SMBJ5.0A	SMBJ5.0A	U	6.40	7.00	5	9.2	.33	.228	.188	.141	3000	.126
581-SMBJ5.0CA	SMBJ5.0CA	B	6.40	7.00	5	9.2	.37	.252	.208	.156	3000	.139
581-SMBJ12A	SMBJ12A	U	13.3	14.7	12	19.9	.37	.255	.21	.158	3000	.141
581-SMBJ12CA	SMBJ12CA	B	13.3	14.7	12	19.9	.36	.268	.227	.175	3000	.155
581-SMBJ18A	SMBJ18A	U	20.0	22.1	18	29.2	.37	.255	.21	.158	3000	.141
581-SMBJ18CA	SMBJ18CA	B	20.0	22.1	18	29.2	.36	.268	.227	.175	3000	.155
581-SMBJ26A	SMBJ26A	U	28.9	31.9	26	42.1	.37	.255	.21	.158	3000	.141
581-SMBJ26CA	SMBJ26CA	B	28.9	31.9	26	42.1	.36	.268	.227	.175	3000	.155
581-SMBJ90A	SMBJ90A	U	100	111	90	146	.37	.255	.21	.158	3000	.141
581-SMBJ90CA	SMBJ90CA	B	100	111	90	146	.36	.268	.227	.175	3000	.155
581-SMBJ140A	SMBJ140A	U	155	171	140	227	.37	.255	.21	.158	3000	.141
581-SMBJ140CA	SMBJ140CA	B	155	171	140	227	.36	.268	.227	.175	3000	.155
581-SMBJ220CA	SMBJ220CA	B	246	272	220	356	.53	.40	.339	.261	3000	.231
<b>SMCJ Series - 400 Watt</b>												
581-SMCJ5.0A	SMCJ5.0A	U	6.40	7.00	5	9.2	.51	.393	.335	.268	3000	.236
581-SMCJ5.0CA	SMCJ5.0CA	B	6.40	7.00	5	9.2	.65	.499	.425	.341	3000	.299
581-SMCJ12A	SMCJ12A	U	13.30	14.7	12	19.9	.60	.455	.387	.31	3000	.273
581-SMCJ18A	SMCJ18A	U	20.00	22.1	18	29.2	.60	.455	.387	.31	3000	.273
581-SMCJ18CA	SMCJ18CA	B	20.00	22.1	18	29.2	.65	.495	.422	.338	3000	.297
581-SMCJ90A	SMCJ90A	U	100	111	90	146	.60	.455	.387	.31	3000	.273
581-SMCJ90CA	SMCJ90CA	B	100	111	90	146	.65	.495	.422	.338	3000	.297
581-SMCJ140A	SMCJ140A	U	155	171	140	227	.60	.455	.387	.31	3000	.273
581-SMCJ140CA	SMCJ140CA	B	155	171	140	227	.67	.513	.436	.35	3000	.307
581-SMCJ220CA	SMCJ220CA	B	246	272	220	356	.85	.653	.579	.458	3000	.414