

Features

- RoHS compliant* and halogen free**
- Surface mount SMC package
- Standoff voltage: 5 to 170 volts
- Peak Pulse Power: 5000 watts
- AEC-Q101 compliant***
- UL Recognized SU

Applications

5.0SMDJ-Q Transient Voltage Suppressor Diode Series

- Protection of power buses
- Protection of I/O interfaces
- Overvoltage transient protection
- Telecom, computer, industrial and consumer electronics applications

General Information

Bourns offers Transient Voltage Suppressor Diodes for surge and ESD protection applications, in compact chip package DO-214AB (SMC) size format. The Transient Voltage Suppressor series offers a choice of Working Peak Reverse Voltage from 5 V up to 170 V and Breakdown Voltage up to 189 V. Typical fast response times are less than 1.0 ps from 0 V to Breakdown Voltage.

Bourns® Chip Diodes conform to JEDEC standards, are easy to handle with standard pick and place equipment and the flat configuration minimizes roll away.

Additional Information

Click these links for more information:



Agency Recognition

Description						
UL	File Number: E153537					

Electrical Characteristics (@ T_A = 25 °C Unless Otherwise Noted)

Parameter	Symbol	Value	Unit
Minimum Peak Pulse Power Dissipation (Tp = 1 ms) (Note 1,2)	P _{PPM}	5000	Watts
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) ^(Note 3,4)	IFSM	300	Amps
Steady State Power Dissipation @ TL = 50 °C	P _{M(AV)}	6.5	Watts
Maximum Instantaneous Forward Voltage @ I _{PP} = 100 A (For Unidirectional Units Only)	V _F	5	Volts
Operating Temperature Range	TJ	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Non-repetitive current pulse, per Pulse Waveform graph and derated above TA = 25 °C per Pulse Derating Curve. 1.

Thermal Resistance Junction to Lead. 2

3. 8.3 ms Single Sine Wave duty cycle = 4 pulses maximum per minute (unidirectional units only).

Mounted on 8.0 mm x 8.0 mm copper pad area to each terminal. 4.



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5.0SMDJ 12 CA-Q Package

- 5.0SMDJ = SMC/DO-214AB
- Working Peak Reverse Voltage $12 = 12 V_{RWM}$ (Volts)

Suffix -

A = 5 % Tolerance Unidirectional Device

CA = 5 % Tolerance Bidirectional Device

AEC-Q101 Compliant Suffix -

Q = AEC-Q101 Compliant, 3000 pcs. per 13-inch Reel QH = AEC-Q101 Compliant, 500 pcs. per 7-inch Reel

WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Q suffix for automotive and other applications requiring appropriate AEC-Q101 compliance for electronic limiters.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

How to Order

BOURNS®

Electrical Characteristics (@ T_A = 25 °C Unless Otherwise Noted)

Part NumberPart NumberPart Number </th <th colspan="2">Unidirectional Device</th> <th colspan="2">Bidirectional Device</th> <th colspan="2">Breakdown Voltage V_{BR} (Volts)</th> <th>Reverse Standoff Voltage</th> <th>Max. Reverse Leakage @ V_{RWM}</th> <th>Max. Clamping Voltage @ I_{pp} (10/1000 µs)</th> <th>Max. Peak Pulse Current (10/1000 µs)</th> <th>Max. Clamping Voltage @ I_{pp (8/20 µs)}</th> <th>Max. Peak Pulse Current (8/20 µs)</th>	Unidirectional Device		Bidirectional Device		Breakdown Voltage V _{BR} (Volts)		Reverse Standoff Voltage	Max. Reverse Leakage @ V _{RWM}	Max. Clamping Voltage @ I _{pp} (10/1000 µs)	Max. Peak Pulse Current (10/1000 µs)	Max. Clamping Voltage @ I _{pp (8/20 µs)}	Max. Peak Pulse Current (8/20 µs)	
SDSMDJB.0A-Q SDRDQ SDDQQ 6.00 7.07 10 5.00 1050 9.2 543.6 12.0 2171.0 SDSMDJB.5A-Q SDBMQ SOSMDJB.5C-Q SDDQQ 6.67 7.37 10 6.00 1050 11.2 446.5 11.4 2227.5 SDSMDJ.5A-Q SDMDV SOSMDJ.7CA-Q SDDVQ 7.28 8.0 10 7.00 300 12.0 416.8 16.8 138.7 17.7 183.5 SOSMDJ.6A-Q SDPDQ SOSMDJ.8CA-Q SDDVQ 10.00 11 8.0 14.4 347.3 18.7 1736.5 SOSMDJ.8A-Q SPDVQ SOSMDJ.8CA-Q SDDVQ 10.00 11.0 12.0 14.4 347.3 18.7 1736.5 14.70	Part Number	Part Marking	Part Number	Part Marking	Min.	Max.	@ I _T (mA)	V _{RWM} (V)	Ι _R (μΑ)	V _c (V)	l _{pp} (A)	V _c (V)	l _{pp} (A)
SosMDLeAM SFNDQ SOSMDLeAM SDNDQ SDNDQ C 7.9 10 6.5 750 11.2 446.5 14.6 227.3 SOSMDLFAM SFDMQ SOSMDLFACM SDNDQ 7.78 8.0 10 7.0 1500 12.0 41.68 16.8 20.81 SOSMDLFAM SPDMQ SOSMDLFACM SDDQ 8.80 9.81 1 8.50 11.6 14.4 38.77 17.7 17.8 18.0 SOSMDLFAM SPDMQ SOSMDLFAM SDDQ 1.00 1.0	5.0SMDJ5.0A-Q	5RDEQ	5.0SMDJ5.0CA-Q	5DDEQ	6.40	7.00	10	5.0	1050	9.2	543.6	12.0	2718.0
SosMbulsA-0 SosMbulsA-CA-0 SDMQ 7.22 7.89 10 6.50 750 11.2 44.55 14.6 223.5 SOSMDJ7A-CA SPDM0 SOSMDJ7.SCA-0 SDDM0 SOSM 300 17.0 300 12.0 41.60 15.60 203.40 SOSMDJ7.SCA-0 SDDM0 SDDM S.33 9.21 1 7.50 11.20 41.40 347.7 17.7 183.5 SOSMDJ3.ACA SDDM0 SDDM0 10.00 11.0 10.0 14.40 347.3 17.61 131.61 SOSMDJ10A-0 SPDV0 SOSMDJ10CA-0 SDDV0 11.00 1 10.0 10.0 14.2 24.2 14.7 137.0 SOSMDJ1A-0 SPEV0 SOSMDJ12CA-0 SBEV0 14.00 14.0 12.0 14.0 12.0 14.0 12.0 14.0 12.0 14.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 <td>5.0SMDJ6.0A-Q</td> <td>5RDGQ</td> <td>5.0SMDJ6.0CA-Q</td> <td>5DDGQ</td> <td>6.67</td> <td>7.37</td> <td>10</td> <td>6.0</td> <td>1050</td> <td>10.3</td> <td>485.5</td> <td>13.4</td> <td>2427.5</td>	5.0SMDJ6.0A-Q	5RDGQ	5.0SMDJ6.0CA-Q	5DDGQ	6.67	7.37	10	6.0	1050	10.3	485.5	13.4	2427.5
SDSMDJ7AO- SDSMDJ7.SOC-0 SDMDV 7.78 8.00 10 7.01 300 12.0 81.85 15.65 SDSMDJ8.ACA SPDPC SOSMDJ8.CAC-0 SDDPC 8.38 9.83 1 1.0 7.0 13.60 36.77 16.86 197.8 SDSMDJ8.ACA SDDPC SDDPC SDDPC 1.0<	5.0SMDJ6.5A-Q	5RDKQ	5.0SMDJ6.5CA-Q	5DDKQ	7.22	7.98	10	6.5	750	11.2	446.5	14.6	2232.5
SoSMDJ7A-Q SPDR SoSMDJ.80-Q SDRD S.33 9.21 1 7.50 150 12.9 39.77 18.81 SOSMDJ8.A-Q SPDR SOSMDJ8.CA-Q SDDR 8.09 9.01 8.00 70.0 13.60 17.07 17.375 SOSMDJ8.A-Q SOSMDJ8.CA-Q SDDW 10.00 11.00 1 8.50 30.11 30.40 31.01 31.03 31.01 31.03 31.01 31.03 31.01 31.01 21.01 30.01 11.01 2 11.01 2 11.01 2 11.01 2 11.01 2 11.01 2 11.01 2 11.01 2 30.01 30	5.0SMDJ7.0A-Q	5PDMQ	5.0SMDJ7.0CA-Q	5DDMQ	7.78	8.60	10	7.0	300	12.0	416.8	15.6	2084.0
SoSMDU8.0A SPDR SoSMDU8.0CA SDDR 8.89 9.83 1 8.00 7.00 13.61 967.7 13.77 1338.5 SOSMDU9.0A SPDV SOSMDU9.0CA SDDV SOSMDU9.0CA SDDV SOSMDU9.0CA SDDV SDDV 11.00 11.00 11.00 12.00<	5.0SMDJ7.5A-Q	5PDPQ	5.0SMDJ7.5CA-Q	5DDPQ	8.33	9.21	1	7.5	150	12.9	387.7	16.8	1938.5
SOSMDL8.SAC SOPM SAMDL8.SACA SODM 9.44 10.40 1 8.5 3.00 14.4 34.7.3 18.7. 17.8.5 SOSMDJ0ACA SDVM SOSMDJ10ACA SDVM 10.00 11.0 12.0 15.4 15.4 32.42 12.1 147.10 SOSMDJ1ACA SPVD SOSMDJ1ACA SBVD 13.00 14.10 12.0 18.2 17.8 13.00 15.00 12.0 13.00 12.0 11.0 2.0 18.0 2.0 2.0 2.0 2.0 12.00 10.00 10.0 12	5.0SMDJ8.0A-Q	5PDRQ	5.0SMDJ8.0CA-Q	5DDRQ	8.89	9.83	1	8.0	70	13.6	367.7	17.7	1838.5
Sosmulane Sprue Sosmulane Sosmulane Sprue Sosmulane Sprue Sosmulane Sprue Sosmulane Sprue Sosmulane Sprue Sosmulane Sprue	5.0SMDJ8.5A-Q	5PDTQ	5.0SMDJ8.5CA-Q	5DDTQ	9.44	10.40	1	8.5	30	14.4	347.3	18.7	1736.5
SosmDu10a Sprox SusmDu10a Sprox Sprox SusmDu10a Sprox SusmDu10a Sprox Sprox<	5.0SMDJ9.0A-Q	5PDVQ	5.0SMDJ9.0CA-Q	5DDVQ	10.00	11.10	1	9.0	12	15.4	324.8	20.0	1624.0
Sommultane Spectra Sommultane Spectra Sommultane Spectra Sommultane Spectra Spectra <td>5.0SMDJ10A-Q</td> <td>5PDXQ</td> <td>5.0SMDJ10CA-Q</td> <td>5DDXQ</td> <td>11.10</td> <td>12.30</td> <td>1</td> <td>10.0</td> <td>6</td> <td>17.0</td> <td>294.2</td> <td>22.1</td> <td>1471.0</td>	5.0SMDJ10A-Q	5PDXQ	5.0SMDJ10CA-Q	5DDXQ	11.10	12.30	1	10.0	6	17.0	294.2	22.1	1471.0
SOSMDJ12A-Q SPEPQ SOSMDJ12A-Q SBEPQ 13.30 14.70 1 12.00 2 19.90 25.20 25.90 126.00 SOSMDJ13A-Q SPEQQ SOSMDJ14C-Q SBEQQ 15.00 17.20 1 114.00 2 21.50 23.00 28.00 100.00 SOSMDJ14A-Q SPEQQ SOSMDJ15CA-Q SBEQ 16.00 1 11.00 2 24.40 20.50 31.7 102.50 SOSMDJ16A-Q SPEQQ SOSMDJ16CA-Q SBEQQ 17.80 11 11.00 2 24.60 19.30 33.80 965.01 SOSMDJ16A-Q SPEUQ SOSMDJ2CA-Q SBEQQ 20.90 1 17.00 2 24.01 35.00 22.01 1 18.00 2 32.01 17.00 35.00 36.01 35.00 35.00 35.00 35.00 12.00 2 36.00 14.10 10.00 50.00 35.00 35.00 35.00 35.00 35.00 35.00 3	5.0SMDJ11A-Q	5PDZQ	5.0SMDJ11CA-Q	5DDZQ	12.20	13.50	1	11.0	2	18.2	274.8	23.7	1374.0
SOSMDJ13A-Q SPEQQ 5.0SMDJ14CA-Q SBEQQ 14.0 15.00 17.20 11.10. 22.15 23.30 28.00 1165.0 SOSMDJ14A-Q SPERQ 5.0SMDJ14CA-Q SBERQ 17.20 1 14.00 2 23.2 21.60 30.2 1080.0 SOSMDJ16A-Q SPERQ 5.0SMDJ16CA-Q SBERQ 17.80 17.80 17.80 2 26.0 133.0 33.8 965.0 SOSMDJ16A-Q SPEVQ 5.0SMDJ16CA-Q SBERQ 17.80 17.80 17.80 22.0 27.6 181.0 35.9 905.0 5.0SMDJ2A-Q SPEVQ 5.0SMDJ2ACA-Q SBEVQ 22.0 2.1 18.00 22.1 35.5 141.0 46.2 705.0 5.0SMDJ2A-Q SPEVQ 5.0SMDJ2ACA-Q SBEVQ 24.00 24.0 28.0 31.0 14 24.0 24.1 110.0 54.7 505.0 5.0SMDJ2A-Q SPEVQ 5.0SMDJ2ACA-Q SBEVQ 31.00 14 28.0 </td <td>5.0SMDJ12A-Q</td> <td>5PEPQ</td> <td>5.0SMDJ12CA-Q</td> <td>5BEPQ</td> <td>13.30</td> <td>14.70</td> <td>1</td> <td>12.0</td> <td>2</td> <td>19.9</td> <td>252.0</td> <td>25.9</td> <td>1260.0</td>	5.0SMDJ12A-Q	5PEPQ	5.0SMDJ12CA-Q	5BEPQ	13.30	14.70	1	12.0	2	19.9	252.0	25.9	1260.0
S.OSMD.J14A-Q SPERQ S.OSMD.J15A-Q SPESQ I.S.O I.Z.O I I.4.0 Q Q.2.2 Q.1.0 M.3.0 I.M.0 S.OSMD.J1SA-Q SPESQ S.OSMD.J1SCA-Q SPESQ I.S.O I.S.O I.S.O Q.2.0 Q.2.0 Q.2.0 Q.2.0 Q.2.0 I.S.O J.S.S.D J.S.S.	5.0SMDJ13A-Q	5PEQQ	5.0SMDJ13CA-Q	5BEQQ	14.40	15.90	1	13.0	2	21.5	233.0	28.0	1165.0
SOMDJ15A-0 SPENQ SOMDJ15A-0 SPENQ SOMDJ16A-0 SPENQ SOMDJ16A-0 SPENQ SOMDJ16A-0 SPENQ SOMDJ16A-0 SPENQ SOMDJ16A-0 SPENQ SOMDJ16A-0 SPENQ SOMDJ17A-0 SPENQ SOMDJ2A-0 SPEN SOMDJ3A-0 SPENQ SOMDJ	5.0SMDJ14A-Q	5PERQ	5.0SMDJ14CA-Q	5BERQ	15.60	17.20	1	14.0	2	23.2	216.0	30.2	1080.0
5.0SMDJ16A-Q 5PETQ 5.0SMDJ17CA-Q 5PETQ 5.0SMDJ17CA-Q 5PETQ 5.0SMDJ17CA-Q 5PEUQ 5.0SMDJ12CA-Q 5PEUQ 5.0SMDJ2CA-Q 5PEUQ 5.0SMDJ2CA-Q 5PEUQ 2.000 22.0 1 1 18.0 2 29.2 17.2.0 38.0 860.0 5.0SMDJ2CA-Q 5PEVQ 5.0SMDJ2CA-Q 5BEVQ 24.0 21 1 20.0 22.0 12.0 2 32.4 15.0 42.1 775.0 5.0SMDJ2AA-Q 5PEQ 5.0SMDJ2ACA-Q 5BEZQ 26.0 1 22.0 2 38.9 12.9.0 50.0 50.5	5.0SMDJ15A-Q	5PESQ	5.0SMDJ15CA-Q	5BESQ	16.70	18.50	1	15.0	2	24.4	205.0	31.7	1025.0
5.0SMDJ17A-Q 5PEUQ 5.0SMDJ17CA-Q 5BEUQ 18.00 20.00 21.0 11.0.0 22.0 27.6 181.0 35.9 905.0 5.0SMDJ18A-Q 5PEVQ 5.0SMDJ20A-Q 5BEVQ 22.00 22.10 1 18.00 22.02 22.0 12.0 12.00 22.0 32.5 141.0 42.1 775.0 5.0SMDJ2AA-Q 5PEXQ 5.0SMDJ2CAA-Q 5BEVQ 24.00 21.0 1 20.0 2 35.5 141.0 42.0 705.0 5.0SMDJ2AA-Q 5PEXQ 5.0SMDJ2CACAQ 5BEVQ 28.00 31.0 1 24.00 2 38.9 129.0 50.6 645.0 5.0SMDJ2AA-Q 5PFQQ 5.0SMDJ3CACAQ 5BEVQ 33.0 36.0 1 30.0 2 48.4 103.0 62.9 515.0 5.0SMDJ3AA-Q 5PFVQ 5.0SMDJ3CA-Q 5BFWQ 36.00 1 36.0 2 58.1 86.1 35.0 46.9 5.0 55.0	5.0SMDJ16A-Q	5PETQ	5.0SMDJ16CA-Q	5BETQ	17.80	19.70	1	16.0	2	26.0	193.0	33.8	965.0
5.0SMDJ18A-Q 5PEVQ 5.0SMDJ2ACAQ 5BEVQ 28.00 22.10 1 18.00 2 29.2 172.00 38.00 860.0 5.0SMDJ2A-Q 5PEWQ 5.0SMDJ2CA-Q 5BEVQ 24.40 26.90 1 20.00 2 35.5 141.00 46.20 705.00 5.0SMDJ2A-Q 5PEXQ 5.0SMDJ2CA-Q 5BEXQ 24.40 26.90 1 22.00 2 35.5 141.00 46.20 705.00 5.0SMDJ2AA-Q 5PEQ 5.0SMDJ2ACA-Q 5BEQ 28.90 1 24.00 2 42.1 110.00 50.00 550.00 5.0SMDJ2AA-Q 5PFQQ 5.0SMDJ2ACA-Q 5BEQ 3.10 3.4.00 1 28.00 2 45.4 110.00 550.00	5.0SMDJ17A-Q	5PEUQ	5.0SMDJ17CA-Q	5BEUQ	18.90	20.90	1	17.0	2	27.6	181.0	35.9	905.0
5.0SMDJ20A-Q 5PEWQ 5.0SMDJ20CA-Q 5BEWQ 22.0 24.0 20.0 1 20.0 2 32.4 155.0 42.1 775.0 5.0SMDJ22A-Q 5PEXQ 5.0SMDJ2CA-Q 5BEXQ 24.0 29.00 1 22.0 28.5 141.0 46.2 705.0 5.0SMDJ26A-Q 5PEZQ 5.0SMDJ26A-Q 5BEZQ 28.00 31.0 24.0 2 38.9 12.00 50.6 645.0 5.0SMDJ26A-Q 5PFQQ 5.0SMDJ26A-Q 5BEQQ 31.0 34.0 1 26.0 2 45.4 110.0 59.0 50.0 5.0SMDJ30A-Q 5PFKQ 5.0SMDJ30A-Q 5BFQQ 33.0 36.80 1 30.0 2 45.4 10.0.0 62.9 51.00 5.0SMDJ30A-Q 5PFKQ 5.0SMDJ30A-Q 5BFQQ 40.00 44.0 1 40.0 2 58.1 86.1 75.5 430.5 5.0SMDJ4A-Q 5PFQ 5.0SMDJ40CA-Q 5BFQ 47.0	5.0SMDJ18A-Q	5PEVQ	5.0SMDJ18CA-Q	5BEVQ	20.00	22.10	1	18.0	2	29.2	172.0	38.0	860.0
5.0SMDJ22A-Q 5PEXQ 5.0SMDJ2CA-Q 5BEXQ 24.4 26.90 1 22.0 35.5 141.0 46.2 705.0 5.0SMDJ2A-Q 5PEQ 5.0SMDJ2CA-Q 5BEZQ 26.0 29.50 1 24.00 2 38.9 129.0 50.6 645.0 5.0SMDJ2A-Q 5PFGQ 5.0SMDJ2CA-Q 5BFGQ 31.00 1 26.00 2 42.1 110.0 54.7 595.0 5.0SMDJ2A-Q 5PFGQ 5.0SMDJ3CA-Q 5BFGQ 31.0 34.0 1 28.00 2 45.4 110.0 54.7 595.0 5.0SMDJ30A-Q 5PFGQ 5.0SMDJ30CA-Q 5BFQQ 33.0 36.0 1 30.0 2 48.4 103.0 62.9 515.0 5.0SMDJ30A-Q 5PFRQ 5.0SMDJ30CA-Q 5BFQ 44.0 41.0 14 40.0 2 68.1 76.1 83.0 5.0SMDJ40A-Q 5PFRQ 5.0SMDJ40CA-Q 5BFQ 47.0 1 40.0 2	5.0SMDJ20A-Q	5PEWQ	5.0SMDJ20CA-Q	5BEWQ	22.20	24.50	1	20.0	2	32.4	155.0	42.1	775.0
5.0SMDJ24A-Q 5PEZQ 5.0SMDJ24A-Q 5BEZQ 26.70 29.50 1 24.0 2 38.9 129.0 50.6 645.0 5.0SMDJ26A-Q 5PFQQ 5.0SMDJ26A-Q 5BFQQ 31.90 1 26.0 2 42.1 119.0 54.7 595.0 5.0SMDJ28A-Q 5PFQQ 5.0SMDJ30A-Q 5BFQQ 31.90 34.40 1 28.0 2 45.4 10.00 59.0 50.05 5.0SMDJ30A-Q 5PFQQ 5.0SMDJ30CA-Q 5BFQ 40.00 44.20 1 33.0 2 53.3 93.9 69.3 469.5 5.0SMDJ30A-Q 5PFQQ 5.0SMDJ30CA-Q 5BFQ 40.00 44.20 1 36.0 2 58.1 86.1 75.5 430.5 5.0SMDJ40A-Q 5PFQQ 5.0SMDJ40A-Q 5BFQ 44.00 49.0 1 40.0 2 64.5 77.6 83.9 38.0 5.0SMDJ4A-Q 5PFQ 5.0SMDJ40A-Q 5BFQ 53.0 5	5.0SMDJ22A-Q	5PEXQ	5.0SMDJ22CA-Q	5BEXQ	24.40	26.90	1	22.0	2	35.5	141.0	46.2	705.0
5.0SMDJ26A-Q 5PFEQ 5.0SMDJ28CA-Q 5BFEQ 28.90 31.90 1 26.00 2 42.1 119.00 54.7 595.00 5.0SMDJ28A-Q 5PFQQ 5.0SMDJ28CA-Q 5BFQQ 31.10 34.40 1 28.00 2 45.4 110.0 59.0 550.00 5.0SMDJ30A-Q 5PFKQ 5.0SMDJ33CA-Q 5BFKQ 33.00 36.80 1 30.0 2 48.4 103.0 62.9 515.00 5.0SMDJ33A-Q 5PFKQ 5.0SMDJ33CA-Q 5BFKQ 40.00 44.20 1 36.0 2 58.1 86.1 75.5 430.5 5.0SMDJ40A-Q 5PFRQ 5.0SMDJ40CA-Q 5BFRQ 44.00 49.10 1 40.00 2 64.5 77.6 83.9 388.0 5.0SMDJ43A-Q 5PFRQ 5.0SMDJ43CA-Q 5BFRQ 47.0 52.80 1 43.00 2 72.7 68.8 94.5 344.0 5.0SMDJ43A-Q 5PFVQ 5.0SMDJ43CA-Q 5BFQ 50.30 5.30 1 48.0 2 72.7 68.8 94	5.0SMDJ24A-Q	5PEZQ	5.0SMDJ24CA-Q	5BEZQ	26.70	29.50	1	24.0	2	38.9	129.0	50.6	645.0
5.0SMDJ28A-Q5PFGQ5.0SMDJ28CA-Q5BFGQ31.1034.40128.0245.4110.059.0550.05.0SMDJ30A-Q5PFKQ5.0SMDJ30CA-Q5BFKQ33.3036.80130.0248.4103.062.9515.05.0SMDJ33A-Q5PFMQ5.0SMDJ33CA-Q5BFMQ36.7040.60133.0253.393.969.3469.55.0SMDJ36A-Q5PFQ5.0SMDJ36CA-Q5BFQ40.0044.20136.0258.186.175.5430.55.0SMDJ40A-Q5PFQ5.0SMDJ40CA-Q5BFQ44.4049.10140.0264.577.683.9388.05.0SMDJ43A-Q5PFQ5.0SMDJ43CA-Q5BFQ47.8052.80143.0269.472.190.2360.55.0SMDJ43A-Q5PFQ5.0SMDJ43CA-Q5BFQ47.8052.80143.0272.768.894.5344.05.0SMDJ43A-Q5PFQ5.0SMDJ43CA-Q5BFQ50.055.30148.0277.464.7100.6323.55.0SMDJ48A-Q5PFQ5.0SMDJ48CA-Q5BFQ56.7062.70151.0282.460.7107.1303.55.0SMDJ54A-Q5PGQ5.0SMDJ56A-Q5BGQ66.7073.70156.0293.653.5121.7267.55.0SMDJ60A-Q5PGQ5.0SMDJ60A-Q5BGQ66.7073.701 <td>5.0SMDJ26A-Q</td> <td>5PFEQ</td> <td>5.0SMDJ26CA-Q</td> <td>5BFEQ</td> <td>28.90</td> <td>31.90</td> <td>1</td> <td>26.0</td> <td>2</td> <td>42.1</td> <td>119.0</td> <td>54.7</td> <td>595.0</td>	5.0SMDJ26A-Q	5PFEQ	5.0SMDJ26CA-Q	5BFEQ	28.90	31.90	1	26.0	2	42.1	119.0	54.7	595.0
5.0SMDJ30A-Q5PFKQ5.0SMDJ30CA-Q5BFKQ33.3036.80130.0248.4103.062.9515.05.0SMDJ33A-Q5PFMQ5.0SMDJ33CA-Q5BFMQ36.7040.60133.0253.393.969.3469.55.0SMDJ36A-Q5PFPQ5.0SMDJ36CA-Q5BFPQ40.0044.20136.0258.186.175.5430.55.0SMDJ40A-Q5PFQ5.0SMDJ40CA-Q5BFRQ44.4049.10140.0264.577.683.9388.05.0SMDJ43A-Q5PFQ5.0SMDJ43CA-Q5BFQ47.8052.80143.00269.472.190.2360.55.0SMDJ45A-Q5PFQ5.0SMDJ45CA-Q5BFQ50.0055.30145.00277.464.710.06323.55.0SMDJ48A-Q5PFQ5.0SMDJ51CA-Q5BFQ56.7062.70151.0282.460.710.71303.55.0SMDJ51A-Q5BGQ5BFQ50.0066.30148.0277.464.710.6323.55.0SMDJ5AA-Q5PGQ5.0SMDJ5ACA-Q5BGQ60.0066.30151.0287.157.5113.2287.55.0SMDJ5AA-Q5BGQ5BGQ64.0071.20158.0293.653.5121.7267.55.0SMDJ5AA-Q5PGQ5.0SMDJ6ACA-Q5BGQ64.0773.70160.0296.8<	5.0SMDJ28A-Q	5PFGQ	5.0SMDJ28CA-Q	5BFGQ	31.10	34.40	1	28.0	2	45.4	110.0	59.0	550.0
5.0SMDJ33A-Q5PFMQ5.0SMDJ33CA-Q5BFMQ36.7040.00133.00253.393.969.3469.55.0SMDJ36A-Q5PFPQ5.0SMDJ36CA-Q5BFPQ40.0044.20136.00258.186.175.5430.55.0SMDJ40A-Q5PFRQ5.0SMDJ40CA-Q5BFRQ44.4049.10140.00264.577.683.9388.05.0SMDJ43A-Q5PFQ5.0SMDJ43CA-Q5BFQ47.8052.80143.00269.472.190.2360.55.0SMDJ45A-Q5PFQ5.0SMDJ45CA-Q5BFQ50.0055.30145.00277.464.7100.6323.55.0SMDJ48A-Q5PFQ5.0SMDJ51CA-Q5BFQ56.7062.70151.0282.460.7107.1303.55.0SMDJ54A-Q5PFQ5.0SMDJ54CA-Q5BFQ66.0066.30154.0293.653.5121.7267.55.0SMDJ58A-Q5PGQ5.0SMDJ56CA-Q5BGQ64.4071.20158.0293.651.7125.8258.55.0SMDJ60A-Q5PGQ5.0SMDJ60CA-Q5BGQ64.7073.70164.0296.851.7125.8258.55.0SMDJ60A-Q5PGQ5.0SMDJ60CA-Q5BGQ77.8086.00170.02113.044.3146.9221.55.0SMDJ70A-Q5PGQ5.0SMDJ70CA-Q5BGQ78.01	5.0SMDJ30A-Q	5PFKQ	5.0SMDJ30CA-Q	5BFKQ	33.30	36.80	1	30.0	2	48.4	103.0	62.9	515.0
5.0SMDJ36A-Q5PFPQ5.0SMDJ36CA-Q5BFPQ40.0044.20136.0258.186.175.5430.55.0SMDJ40A-Q5PFRQ5.0SMDJ40CA-Q5BFRQ44.4049.10140.00264.577.683.9388.05.0SMDJ43A-Q5PFTQ5.0SMDJ43CA-Q5BFTQ47.8052.80143.00269.472.190.2360.55.0SMDJ45A-Q5PFVQ5.0SMDJ45CA-Q5BFVQ50.0055.30145.00277.464.7100.6323.55.0SMDJ4A-Q5PFXQ5.0SMDJ51CA-Q5BFXQ56.7062.70151.0282.460.7107.1303.55.0SMDJ54A-Q5PGQ5.0SMDJ54CA-Q5BEQ60.0066.30154.0287.157.5113.2287.55.0SMDJ54A-Q5PGQ5.0SMDJ56CA-Q5BGQ64.071.20158.0293.653.5121.7267.55.0SMDJ60A-Q5PGQ5.0SMDJ60CA-Q5BGQ64.071.0158.0296.851.7125.8258.55.0SMDJ60A-Q5PGQ5.0SMDJ60CA-Q5BGQ77.8086.00170.02113.044.3146.9221.55.0SMDJ70A-Q5PGPQ5.0SMDJ70CA-Q5BGRQ83.0092.10175.02113.044.3146.9221.55.0SMDJ75A-Q5PGRQ5.0SMDJ75CA-Q5BGRQ83.0092.10	5.0SMDJ33A-Q	5PFMQ	5.0SMDJ33CA-Q	5BFMQ	36.70	40.60	1	33.0	2	53.3	93.9	69.3	469.5
5.0SMDJ40A-Q5PFRQ5.0SMDJ40CA-Q5BFRQ44.4049.10140.0264.577.683.9388.05.0SMDJ43A-Q5PFYQ5.0SMDJ43CA-Q5BFYQ47.8052.80143.00269.472.190.2360.55.0SMDJ45A-Q5PFYQ5.0SMDJ45CA-Q5BFYQ50.0055.30145.00272.768.894.5344.05.0SMDJ48A-Q5PFXQ5.0SMDJ48CA-Q5BFXQ53.0058.90148.00277.464.7100.6323.55.0SMDJ51A-Q5DFXQ5.0SMD5BFXQ56.7062.70151.00282.460.7107.1303.55.0SMDJ54A-Q5DFXQ5.0SMD5BFQQ60.0066.30151.00287.1157.50113.2287.515.0SMDJ58A-Q5DGQ5BGQ64.0071.20158.00293.6053.55121.7267.515.0SMDJ60A-Q5DGMQ5BGQQ64.0071.0071.00158.00296.8051.7125.80258.555.0SMDJ60A-Q5DGMQ5BGQQ71.0078.60164.002103.0048.60133.9243.005.0SMDJ60A-Q5DGMQ5BGQQ71.0078.60164.002103.0048.60133.9243.005.0SMDJ60A-Q5DGMQ5BGQQ77.8086.00170.002113.0044.63146.9 </td <td>5.0SMDJ36A-Q</td> <td>5PFPQ</td> <td>5.0SMDJ36CA-Q</td> <td>5BFPQ</td> <td>40.00</td> <td>44.20</td> <td>1</td> <td>36.0</td> <td>2</td> <td>58.1</td> <td>86.1</td> <td>75.5</td> <td>430.5</td>	5.0SMDJ36A-Q	5PFPQ	5.0SMDJ36CA-Q	5BFPQ	40.00	44.20	1	36.0	2	58.1	86.1	75.5	430.5
5.0SMDJ43A-Q5PFTQ5.0SMDJ43CA-Q5BFTQ47.8052.80143.0269.472.190.2360.55.0SMDJ45A-Q5PFVQ5.0SMDJ45CA-Q5BFVQ50.0055.30145.0272.768.894.5344.05.0SMDJ48A-Q5PFXQ5.0SMDJ48CA-Q5BFXQ53.3058.90148.0277.464.7100.6323.55.0SMDJ51A-Q5PFZQ5.0SMDJ51CA-Q5BFZQ56.7062.70151.0282.460.7107.1303.55.0SMDJ54A-Q5NGQ5.0SMDJ54CA-Q5BGQ60.0066.30154.0287.157.5113.2287.55.0SMDJ58A-Q5DGQ5.0SMDJ58CA-Q5BGQ64.4071.20158.0293.653.5121.7267.55.0SMDJ60A-Q5PGQ5.0SMDJ60CA-Q5BGQ64.4071.20158.0296.851.7125.8258.55.0SMDJ60A-Q5DGMQ5.0SMDJ60CA-Q5BGQ66.7073.70160.0296.851.7125.8258.55.0SMDJ60A-Q5PGRQ5.0SMDJ60CA-Q5BGPQ77.8086.00170.02113.044.3146.9221.55.0SMDJ70A-Q5PGRQ5.0SMDJ70CA-Q5BGRQ83.3092.10175.02121.041.4157.3207.05.0SMDJ78A-Q5PGRQ5.0SMDJ78CA-Q5BGRQ86.7095	5.0SMDJ40A-Q	5PFRQ	5.0SMDJ40CA-Q	5BFRQ	44.40	49.10	1	40.0	2	64.5	77.6	83.9	388.0
5.0SMDJ45A-Q50FVQ5.0SMDJ45CA-Q5BFVQ50.0055.30145.0272.768.894.5344.05.0SMDJ48A-Q5PFXQ5.0SMDJ48CA-Q5BFXQ53.3058.90148.0277.464.7100.6323.55.0SMDJ51A-Q5PFZQ5.0SMDJ51CA-Q5BFZQ56.7062.70151.0282.460.7107.1303.55.0SMDJ54A-Q5RGQ5.0SMDJ54CA-Q5BGQ60.0066.30154.0287.157.5113.2287.55.0SMDJ58A-Q50SMDJ58CA-Q5BGQ64.4071.20158.0293.653.5121.7267.55.0SMDJ60A-Q5PGKQ5.0SMDJ60CA-Q5BGKQ66.7073.70160.0296.851.7125.8258.55.0SMDJ60A-Q5PGKQ5.0SMDJ60CA-Q5BGKQ66.7073.70164.02103.048.6133.9243.05.0SMDJ60A-Q5PGKQ5.0SMDJ60CA-Q5BGKQ77.8086.00170.02113.044.3146.9221.55.0SMDJ70A-Q5PGRQ5.0SMDJ70CA-Q5BGRQ83.3092.10175.02121.041.4157.3207.05.0SMDJ78A-Q5PGRQ5.0SMDJ78CA-Q5BGRQ86.7095.80178.02126.039.7163.8198.55.0SMDJ78A-Q5PGRQ5.0SMDJ78CA-Q5BGRQ86.7095.80	5.0SMDJ43A-Q	5PFTQ	5.0SMDJ43CA-Q	5BFTQ	47.80	52.80	1	43.0	2	69.4	72.1	90.2	360.5
5.0SMDJ48A-Q5PFXQ5.0SMDJ48CA-Q5BFXQ53.3058.90148.0277.464.7100.6323.55.0SMDJ51A-Q5PFZQ5.0SMDJ51CA-Q5BFZQ56.7062.70151.0282.460.7107.1303.55.0SMDJ54A-Q5RGEQ5.0SMDJ54CA-Q5BGQ60.0066.30154.0287.157.5113.2287.55.0SMDJ58A-Q5PGQQ5.0SMDJ58CA-Q5BGQQ64.4071.20158.0293.653.5121.7267.55.0SMDJ60A-Q5PGKQ5.0SMDJ60CA-Q5BGKQ66.7073.70160.0296.851.7125.8258.55.0SMDJ64A-Q5PGKQ5.0SMDJ60CA-Q5BGKQ71.1078.60164.02103.048.6133.9243.05.0SMDJ70A-Q5PGRQ5.0SMDJ70CA-Q5BGRQ77.8086.00170.02113.044.3146.9221.55.0SMDJ75A-Q5PGRQ5.0SMDJ75CA-Q5BGRQ83.3092.10175.02121.041.4157.3207.05.0SMDJ78A-Q5PGRQ5.0SMDJ78CA-Q5BGRQ86.7095.80178.02126.039.7163.8198.55.0SMDJ78A-Q5PGRQ5.0SMDJ78CA-Q5BGRQ86.7095.80178.02121.041.4157.3207.05.0SMDJ78A-Q5PGRQ5.0SMDJ78CA-Q5BGRQ86.70	5.0SMDJ45A-Q	5PFVQ	5.0SMDJ45CA-Q	5BFVQ	50.00	55.30	1	45.0	2	72.7	68.8	94.5	344.0
5.0SMDJ51A-Q5PFZQ5.0SMDJ51CA-Q5BFZQ56.7062.70151.0282.460.7107.1303.55.0SMDJ54A-Q5RGEQ5.0SMDJ54CA-Q5BGEQ60.0066.30154.0287.157.5113.2287.55.0SMDJ58A-Q5PGQQ5.0SMDJ58CA-Q5BGQQ64.4071.20158.0293.653.5121.7267.55.0SMDJ60A-Q5PGKQ5.0SMDJ60CA-Q5BGKQ66.7073.70160.0296.851.7125.8258.55.0SMDJ64A-Q5PGMQ5.0SMDJ64CA-Q5BGKQ71.1078.00164.02103.048.6133.9243.05.0SMDJ70A-Q5PGPQ5.0SMDJ70CA-Q5BGPQ77.8086.00170.02113.044.3146.9221.55.0SMDJ75A-Q5PGRQ5.0SMDJ75CA-Q5BGRQ83.3092.10175.02121.041.4157.3207.05.0SMDJ78A-Q5PGRQ5.0SMDJ78CA-Q5BGTQ86.7095.80178.02126.039.7163.8198.55.0SMDJ78A-Q5PGRQ5.0SMDJ78CA-Q5BGVQ94.40104.00185.02137.036.5178.1182.5	5.0SMDJ48A-Q	5PFXQ	5.0SMDJ48CA-Q	5BFXQ	53.30	58.90	1	48.0	2	77.4	64.7	100.6	323.5
5.0SMDJ54A-Q5RGEQ5.0SMDJ54CA-Q5BGEQ60.0066.30154.0287.157.5113.2287.55.0SMDJ58A-Q5PGQQ5.0SMDJ58CA-Q5BGQQ64.4071.20158.0293.653.5121.7267.55.0SMDJ60A-Q5PGKQ5.0SMDJ60CA-Q5BGKQ66.7073.70160.0296.851.7125.8258.55.0SMDJ64A-Q5PGKQ5.0SMDJ64CA-Q5BGKQ71.1078.60164.02103.048.6133.9243.05.0SMDJ70A-Q5PGRQ5.0SMDJ70CA-Q5BGRQ77.8086.00170.02113.044.3146.9221.55.0SMDJ75A-Q5PGRQ5.0SMDJ75CA-Q5BGRQ83.3092.10175.02121.041.4157.3207.05.0SMDJ78A-Q5PGTQ5.0SMDJ78CA-Q5BGTQ86.7095.80178.002126.039.7163.8198.55.0SMDJ85A-Q5PGRQ5.0SMDJ85CA-Q5BGVQ94.40104.00185.02137.036.5178.1182.5	5.0SMDJ51A-Q	5PFZQ	5.0SMDJ51CA-Q	5BFZQ	56.70	62.70	1	51.0	2	82.4	60.7	107.1	303.5
5.0SMDJ58A-Q5PGGQ5.0SMDJ58CA-Q5BGGQ64.4071.20158.0293.653.5121.7267.55.0SMDJ60A-Q5PGKQ5.0SMDJ60CA-Q5BGKQ66.7073.70160.0296.851.7125.8258.55.0SMDJ64A-Q5PGRQ5.0SMDJ64CA-Q5BGMQ71.1078.60164.02103.048.6133.9243.05.0SMDJ70A-Q5PGPQ5.0SMDJ70CA-Q5BGPQ77.8086.00170.02113.044.3146.9221.55.0SMDJ75A-Q5PGRQ5.0SMDJ75CA-Q5BGRQ83.3092.10175.02121.041.4157.3207.05.0SMDJ78A-Q5PGRQ5.0SMDJ78CA-Q5BGTQ86.7095.80178.02126.039.7163.8198.55.0SMDJ85A-Q5PGRQ5.0SMDJ85CA-Q5BGVQ94.40104.00185.02137.036.5178.1182.5	5.0SMDJ54A-Q	5RGEQ	5.0SMDJ54CA-Q	5BGEQ	60.00	66.30	1	54.0	2	87.1	57.5	113.2	287.5
5.0SMDJ60A-Q5PGKQ5.0SMDJ60CA-Q5BGKQ66.7073.70160.0296.851.7125.8258.55.0SMDJ64A-Q5PGMQ5.0SMDJ64CA-Q5BGMQ71.1078.60164.02103.048.6133.9243.05.0SMDJ70A-Q5PGPQ5.0SMDJ70CA-Q5BGPQ77.8086.00170.02113.044.3146.9221.55.0SMDJ75A-Q5PGRQ5.0SMDJ75CA-Q5BGRQ83.3092.10175.02121.041.4157.3207.05.0SMDJ78A-Q5PGRQ5.0SMDJ78CA-Q5BGTQ86.7095.80178.02126.039.7163.8198.55.0SMDJ85A-Q5PGRQ5.0SMDJ85CA-Q5BGVQ94.40104.00185.02137.036.5178.1182.5	5.0SMDJ58A-Q	5PGGQ	5.0SMDJ58CA-Q	5BGGQ	64.40	71.20	1	58.0	2	93.6	53.5	121.7	267.5
5.0SMDJ64A-Q5PGMQ5.0SMDJ64CA-Q5BGMQ71.1078.60164.02103.048.6133.9243.05.0SMDJ70A-Q5PGPQ5.0SMDJ70CA-Q5BGPQ77.8086.00170.02113.044.3146.9221.55.0SMDJ75A-Q5PGRQ5.0SMDJ75CA-Q5BGRQ83.3092.10175.02121.041.4157.3207.05.0SMDJ78A-Q5PGRQ5.0SMDJ78CA-Q5BGRQ86.7095.80178.02126.039.7163.8198.55.0SMDJ85A-Q5PGVQ5.0SMDJ85CA-Q5BGVQ94.40104.00185.02137.036.5178.1182.5	5.0SMDJ60A-Q	5PGKQ	5.0SMDJ60CA-Q	5BGKQ	66.70	73.70	1	60.0	2	96.8	51.7	125.8	258.5
5.0SMDJ70A-Q 5PGPQ 5.0SMDJ70CA-Q 5BGPQ 77.80 86.00 1 70.0 2 113.0 44.3 146.9 221.5 5.0SMDJ75A-Q 5PGRQ 5.0SMDJ75CA-Q 5BGRQ 83.30 92.10 1 75.00 2 121.00 44.3 146.9 221.5 5.0SMDJ75A-Q 5PGRQ 5.0SMDJ75CA-Q 5BGRQ 83.30 92.10 1 75.00 2 121.00 44.4 157.30 207.00 5.0SMDJ78A-Q 5PGRQ 5.0SMDJ78CA-Q 5BGRQ 86.70 95.80 1 78.00 2 126.00 39.7 163.80 198.50 5.0SMDJ85A-Q 5PGRQ 5.0SMDJ85CA-Q 5BGVQ 94.40 104.00 1 85.00 2 137.00 36.5 178.1 182.50	5.0SMDJ64A-Q	5PGMQ	5.0SMDJ64CA-Q	5BGMQ	71.10	78.60	1	64.0	2	103.0	48.6	133.9	243.0
5.0SMDJ75A-Q 5PGRQ 5.0SMDJ75CA-Q 5BGRQ 83.30 92.10 1 75.0 2 121.0 41.4 157.3 207.0 5.0SMDJ78A-Q 5PGTQ 5.0SMDJ78CA-Q 5BGTQ 86.70 95.80 1 78.0 2 126.0 39.7 163.8 198.5 5.0SMDJ85A-Q 5PGVQ 5.0SMDJ85CA-Q 5BGVQ 94.40 104.00 1 85.0 2 137.0 36.5 178.1 182.5	5.0SMDJ70A-Q	5PGPQ	5.0SMDJ70CA-Q	5BGPQ	77.80	86.00	1	70.0	2	113.0	44.3	146.9	221.5
5.0SMDJ78A-Q 5PGTQ 5.0SMDJ78CA-Q 5BGTQ 86.70 95.80 1 78.0 2 126.0 39.7 163.8 198.5 5.0SMDJ85A-Q 5PGVQ 5.0SMDJ85CA-Q 5BGVQ 94.40 104.00 1 85.0 2 137.0 36.5 178.1 182.5	5.0SMDJ75A-Q	5PGRQ	5.0SMDJ75CA-Q	5BGRQ	83.30	92.10	1	75.0	2	121.0	41.4	157.3	207.0
5.0SMDJ85A-Q 5PGVQ 5.0SMDJ85CA-Q 5BGVQ 94.40 104.00 1 85.0 2 137.0 36.5 178.1 182.5	5.0SMDJ78A-Q	5PGTQ	5.0SMDJ78CA-Q	5BGTQ	86.70	95.80	1	78.0	2	126.0	39.7	163.8	198.5
	5.0SMDJ85A-Q	5PGVQ	5.0SMDJ85CA-Q	5BGVQ	94.40	104.00	1	85.0	2	137.0	36.5	178.1	182.5

Note:

1. 'Q' suffix denotes AEC-Q101 compliance. 2. For bidirectional devices with a V_R of 10 volts or less, the I_R limit is double.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at <u>www.bourns.com/docs/legal/disclaimer.pdf</u>.

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Unidirectiona	I Device	Bidirection	al Device	Break Vi	down Vo _{3R} (Volts	ltage)	Reverse Standoff Voltage	Maximum Reverse Leakage @ V _{RWM}	Max. Clamping Voltage @ I _{pp} (10/1000 µs)	Max. Peak Pulse Current (10/1000 μs)	Max. Clamping Voltage @ Ipp (8/20 µs)	Max. Peak Pulse Current (8/20 µs)
Part Number	Part Marking	Part Number	Part Marking	Min.	Max.	@ I _T (mA)	V _{RWM} (V)	Ι _R (μΑ)	V _c (V)	I _{рр} (А)	V _c (V)	l _{pp} (A)
5.0SMDJ90A-Q	5PGXQ			100.00	111.00	1	90.0	2	146.0	34.3	189.8	171.5
5.0SMDJ100A-Q	5PGZQ			111.00	123.00	1	100.0	2	162.0	30.9	210.6	154.5
5.0SMDJ110A-Q	5PHEQ			122.00	135.00	1	110.0	2	177.0	28.3	230.1	141.5
5.0SMDJ120A-Q	5PHGQ			133.00	147.00	1	120.0	2	193.0	26.0	250.9	130.0
5.0SMDJ130A-Q	5PHKQ			144.00	159.00	1	130.0	2	209.0	24.0	271.7	120.0
5.0SMDJ150A-Q	5PHMQ			167.00	185.00	1	150.0	2	243.0	20.6	315.9	103.0
5.0SMDJ160A-Q	5PHPQ			178.00	197.00	1	160.0	2	259.0	19.3	336.7	96.5
5.0SMDJ170A-Q	5PHRQ			189.00	209.00	1	170.0	2	275.0	18.2	357.5	91.0

Electrical Characteristics (@ T_A = 25 °C Unless Otherwise Noted) - Continued

Product Dimensions



Dimension	SMC (DO-214AB)
^	6.60 - 7.11
~	(0.260 - 0.280)
в	5.59 - 6.22
D	(0.220 - 0.245)
C	2.90 - 3.20
U	(0.114 - 0.126)
П	0.15 - 0.31
D	(0.006 - 0.012)
	7.75 - 8.13
	(0.305 - 0.320)
	MAX
1	(0.008)
G	2.01 - 2.62
G	(0.080 - 0.103)
н	0.76 - 1.52
	(0.030 - 0.060)

Recommended Footprint



R

Dimension	SMC (DO-214AB)
A (Max)	_4.69
A (IVIAX.)	(0.185)
R (Min)	3.07
D (IVIIII.)	(0.121)
C (Min)	1.53
C (MIII.)	(0.060)

DIMENSIONS: $\frac{MM}{(INCHES)}$

Physical Specifications

Encapsulation	Molded plastic per UL Class 94V-0
Polarity	Cathode band indicates unidirectional device
	No cathode band indicates bidirectional device

Environmental Specifications

Moisture Sensitivity L	.evel	1
ESD Classification (H	IBM)	3B

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DIMENSIONS: $\frac{MM}{(INCHES)}$

BOURNS

Rating & Characteristic Curves



Pulse Waveform







Maximum Non-Repetitive Surge Current 300 Peak Forward Surge Current (Amps) 250 200 150 100 300 A at 1 cycle 50 100 A at 80 cycles 0 100 50 5 10 20 1 2



Typical Junction Capacitance







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Packaging Information

The product will be dispensed in tape and reel format (see diagram below).





Devices are packed in accordance with EIA standard EIA-481-D and specifications shown here.

Item	Symbol	SMC (DO-214AB)				
		7-Inch Reel	13-Inch Reel			
Carrier Width	А	$\frac{6.0 \pm 0.20}{(0.236 \pm 0.079)}$				
Carrier Length	В	$\frac{8.3 \pm 0.000}{(0.327 \pm 0.000)}$	± 0.20 ± 0.008)			
Carrier Depth	С	<u>2.5 ±</u> (0.098 :	: 0.20 ± 0.008)			
Sprocket Hole	d	<u>1.50</u> (0.059	± 0.10 ± 0.004)			
Reel Outside Diameter	D	<u>178</u> (7.008)	<u>330</u> (12.992)			
Reel Inner Diameter	D ₁	50.0 (1.969) MIN.				
Feed Hole Diameter	D ₂	<u>13.0 +0.50/-0.20</u> (0.512 +0.020/-0.008)				
Sprocket Hole Position	E	$\frac{1.75 \pm 0.10}{(0.069 \pm 0.004)}$				
Punch Hole Position	F	<u>7.50</u> (0.295	± 0.10 ± 0.004)			
Punch Hole Pitch	Р	<u>8.00 :</u> (0.315 :	± 0.10 ± 0.004)			
Sprocket Hole Pitch	P ₀	$\frac{4.00 \pm 0.10}{(0.157 \pm 0.004)}$				
Embossment Center	P ₁	$\frac{2.00 \pm 0.10}{(0.079 \pm 0.004)}$				
Overall Tape Thickness	Т	$\begin{array}{c} 0.30 \pm 0.10 \\ (0.012 \pm 0.004) \end{array}$				
Tape Width	W	$\frac{16.00 \pm 0.30}{(0.630 \pm 0.012)}$				
Reel Width	W ₁	22.4 (0.882) MAX.				
Quantity per Reel		500 3,000				

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Users should verify actual device performance in their specific applications.

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