# SPECIFICATION SHEET

## SMD TRANSIENT VOLTAGE SUPPRESSORS DIODES SMBJ SERIES

| | | |
|---|---|---|
| **SPECIFICATION SHEET NO.** | S0326- SMBJ10CA00S0AX | |
| **ORIGINAL MFG/PART NO.** | MDD Diodes/SMBJ10CA | |
| **NEXTGEN PART CODE** | SMBJ10CA00S0AX | Indicate This Code For RFQ /Order |
| **DATE** | Mar. 26, 2025 | |
| **REVISION** | A3 | Updated With Most Recent Data |
| **DESCRIPTION AND MAIN PARAMETRICS** | SMD Transient Voltage Suppressor (TVs) Diodes, SMBJ Series<br>Case SMB/DO-214AA, 2 Pads,<br>Bidirectional Type, Reverse Stand-off Voltage 10V,<br>Peak Pulse Power: 600 Watts, Peak Pulse Current: 35.3A Max.<br>Operating Junction Temp. Range -65°C ~+150°C<br>Package in Tape/Reel, 3000pcs/Reel<br>RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863) and Halogen Free (HF) | |
| **CUSTOMER** | | |
| **CUSTOMER PART NUMBER** | | |
| **CROSS REF. PART NUMBER** | | |
| **MEMO** | | |

| **VENDOR APPROVE** |
|---|
| Issued/Checked/Approved — Mandy Xu, Ruby Zhang, Jack Zhang (NextGen Components, Inc.) |
| Effective Date: Mar. 26, 2025 |

| **CUSTOMER APPROVE** |
|---|
| |
| Date: |

## MAIN FEATURE

*Image shown is a representation only. Exact specifications should be obtained from the product dimension.*

- The Plastic Package Carries Underwriters Laboratory Flammability Classification 94V-0
- Low Profile Package
- Built-in Strain Relief
- High Temperature Soldering Guaranteed: 260℃/ 10 Seconds At Terminals
- Glass Passivated Chip Junction
- Low Inductance
- 5% $V_{BR}$ Voltage Tolerance
- Excellent Clamping Capability
- 600W Peak Pulse Power Capability At 10/1000μs Waveform
- Repetition Rate (Duty Cycle): 0.01%
- Fast Response Time
- Typical $I_R$ Less Than 1μA Above 10V
- Cross Competitors Parts and More.
- RoHS/RoHS III Compliant, RoHS Annex III Lead Exemption (Exempt per RoHS EU 2015/863)

## APPLICATION

- I/O Interface
- AC/DC Power Supply
- Low Frequency Signal Transmission Line (RS232, RS485, etc.)

## ELECTRICAL CHARACTERISTICS

- See Page 5 ~Page 11 For Different Part Code
- All Parameters are Subject To NextGen Components' Final Confirmation

## HOW TO ORDER

- Please Follow Up Part Code Guide And Indicate NextGen Part Code SMBJ10CA00S0AX For RFQ and Order.

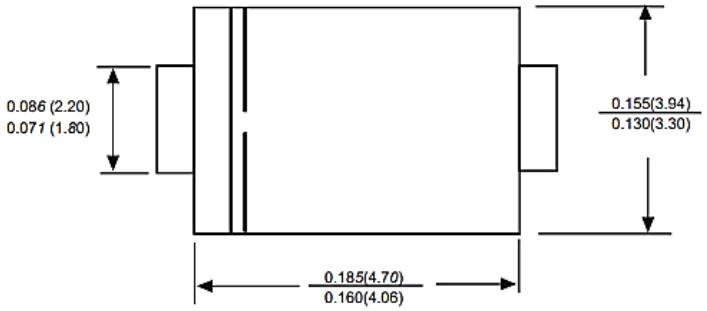
## PART CODE GUIDE

**RFQ**
Request For Quotation

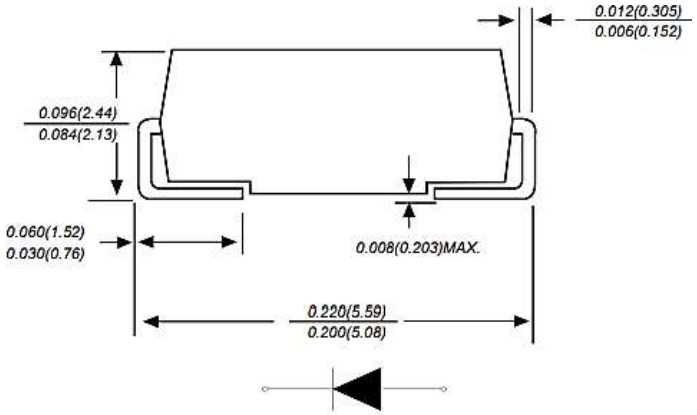
| CODE | NAME | KEY SPECIFICATION OPTION |
|---|---|---|
| SMBJ | Product Series Code | SMD Transient Voltage Suppressors (TVs) Diodes, Case SMB/DO-214AA, 2 Pads, |
| 10CA | Mode code | 10CA: Reverse Stand-Off Voltage 10V, Bidirectional Polarity Type |
| 00S0 | Internal Control Code | Letter or Digits (A~Z, a~z or 1~9) |
| AX | Marking Code | Marking “AX” |
| XX | Special/Custom Parameters Code | Letter or Digits (A~Z, a~z or 1~9) for Special Parametric;<br>Blank: N/A |

**DIMENSION**- Unit: Inch/mm, Case SMB/DO-214AA Outline

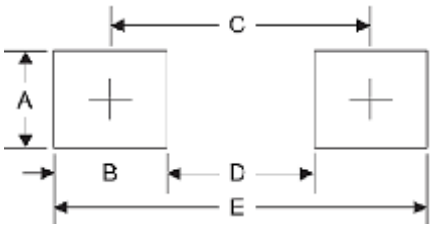
Top View




Side View




Recommend Pad Layout




| SYMBOL | A | B | C | D | E |
|---|---|---|---|---|---|
| Unit (Inch) | 0.11 | 0.094 | 0.181 | 0.086 | 0.276 |
| Unit (mm) | 2.80 | 2.40 | 4.60 | 2.20 | 7.00 |

## MECHANICAL DATA

| CASE | TERMINALS | POLARITY | MOUNTING POSITION | MARKING | WEIGHT PER PIECE |
|---|---|---|---|---|---|
| JEDEC SMB/DO-214AA Molded Plastic Body | Solderable per MIL-STD-750,Method 2026 | Polarity Symbol Marking On Body | Any | See Marking Code List | 0.003 Ounce, 0.095 Grams |

## MAX. RATING & CHARACTERISTICS - Ratings At 25℃ Ambient Temperature Unless Otherwise Specified.

| PARAMETER | SYMBOLS | VALUE | UNITS |
|---|---|---|---|
| Peak Pulse Power Dissipation At 10/1000μs Waveform (Note 1, Note 2, Fig. 1) | $P_{PPM}$ | 600 Min. | W |
| Peak Pulse Current On 10/1000 Us Waveform (Note 1, Fig. 3) | $I_{PPM}$ | See Page 6~page 11 | A |
| Steady State Power Dissipation At $T_A$=50℃ (Fig. 5) | $P_{M(AV)}$ | 5.0 | W |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC Method) (Note 3, Fig. 6) | $I_{FSM}$ | 100 | A |
| Operating Junction And Storage Temperature Range. | $T_J$, Tstg | -65 ~ +150 | °C |
| Typical Thermal Resistance Junction To Lead | $R_{\theta JL}$ | 20 | °C/W |
| Typical Thermal Resistance Junction To Ambient | $R_{\theta JA}$ | 100 | °C/W |

Note

1. Non-repetitive current pulse, per Fig 3 and derated above $T_A$=25 °C per Fig 2
2. Mounted on 5.0*5.0mm (0.03mm Thickness) copper pads to each terminal
3. 8.3ms single half sinewave or equivalent square wave, duty cycle=4 pulsed per minute Max.

**UNIDIRECTIONAL TYPE-** ELECTRICAL CHARACTERISTICS - Ta = 25℃

| Part Code | Reverse Stand-off Voltage | Breakdown Voltage | | Test Current | Reverse Leakage Max. | Max. Clamp Voltage | Peak Pulse Current | Marking Code |
|---|---|---|---|---|---|---|---|---|
| | | $V_{BR}$ @ $I_T$ | | | | | | |
| | $V_{RWM}$ | Min | Max | $I_T$ | $I_R$ @ $V_{RWM}$ | $V_C$ @ $I_{PP}$ | $I_{PP}$ | |
| | V | V | V | mA | µA | V | A | |
| SMBJ050A00S0KE | 5 | 6.4 | 7 | 10 | 800 | 9.2 | 65.3 | KE |
| SMBJ060A00S0KG | 6 | 6.67 | 7.37 | 10 | 800 | 10.3 | 58.3 | KG |
| SMBJ065A00S0KK | 6.5 | 7.22 | 7.98 | 10 | 500 | 11.2 | 53.6 | KK |
| SMBJ070A00S0KM | 7 | 7.78 | 8.6 | 10 | 200 | 12 | 50 | KM |
| SMBJ075A00S0KP | 7.5 | 8.33 | 9.21 | 1 | 100 | 12.9 | 46.6 | KP |
| SMBJ080A00S0KR | 8 | 8.89 | 9.83 | 1 | 50 | 13.6 | 44.2 | KR |
| SMBJ085A00S0KT | 8.5 | 9.44 | 10.4 | 1 | 20 | 14.4 | 41.7 | KT |
| SMBJ090A00S0KV | 9 | 10 | 11.1 | 1 | 10 | 15.4 | 39 | KV |
| SMBJ10A000S0KX | 10 | 11.1 | 12.3 | 1 | 5 | 17 | 35.3 | KX |
| SMBJ11A000S0KZ | 11 | 12.2 | 13.5 | 1 | 1 | 18.2 | 33 | KZ |
| SMBJ12A000S0LE | 12 | 13.3 | 14.7 | 1 | 1 | 19.9 | 30.2 | LE |
| SMBJ13A000S0LG | 13 | 14.4 | 15.9 | 1 | 1 | 21.5 | 28 | LG |
| SMBJ14A000S0LK | 14 | 15.6 | 17.2 | 1 | 1 | 23.2 | 25.9 | LK |
| SMBJ15A000S0LM | 15 | 16.7 | 18.5 | 1 | 1 | 24.4 | 24.6 | LM |
| SMBJ16A000S0LP | 16 | 17.8 | 19.7 | 1 | 1 | 26 | 23.1 | LP |
| SMBJ17A000S0LR | 17 | 18.9 | 20.9 | 1 | 1 | 27.6 | 21.8 | LR |
| SMBJ18A000S0LT | 18 | 20 | 22.1 | 1 | 1 | 29.2 | 20.6 | LT |
| SMBJ20A000S0LV | 20 | 22.2 | 24.5 | 1 | 1 | 32.4 | 18.6 | LV |
| SMBJ22A000S0LX | 22 | 24.4 | 26.9 | 1 | 1 | 35.5 | 16.9 | LX |
| SMBJ24A000S0LZ | 24 | 26.7 | 29.5 | 1 | 1 | 38.9 | 15.5 | LZ |

**UNIDIRECTIONAL TYPE-** ELECTRICAL CHARACTERISTICS - Ta = 25℃

| Part Code | Reverse Stand-off Voltage | Breakdown Voltage | | Test Current | Reverse Leakage Max. | Max. Clamp Voltage | Peak Pulse Current | Marking Code |
|---|---|---|---|---|---|---|---|---|
| | | $V_{BR}$ @ $I_T$ | | | | | | |
| | $V_{RWM}$ | Min | Max | $I_T$ | $I_R$ @ $V_{RWM}$ | $V_C$ @ $I_{PP}$ | $I_{PP}$ | |
| | V | V | V | mA | µA | V | A | |
| SMBJ26A000S0ME | 26 | 28.9 | 31.9 | 1 | 1 | 42.1 | 14.3 | ME |
| SMBJ28A000S0MG | 28 | 31.1 | 34.4 | 1 | 1 | 45.4 | 13.3 | MG |
| SMBJ30A000S0MK | 30 | 33.3 | 36.8 | 1 | 1 | 48.4 | 12.4 | MK |
| SMBJ33A000S0MM | 33 | 36.7 | 40.6 | 1 | 1 | 53.3 | 11.3 | MM |
| SMBJ36A000S0MP | 36 | 40 | 44.2 | 1 | 1 | 58.1 | 10.4 | MP |
| SMBJ40A000S0MR | 40 | 44.4 | 49.1 | 1 | 1 | 64.5 | 9.3 | MR |
| SMBJ43A000S0MT | 43 | 47.8 | 52.8 | 1 | 1 | 69.4 | 8.7 | MT |
| SMBJ45A000S0MV | 45 | 50 | 55.3 | 1 | 1 | 72.7 | 8.3 | MV |
| SMBJ48A000S0MX | 48 | 53.3 | 58.9 | 1 | 1 | 77.4 | 7.8 | MX |
| SMBJ51A000S0MZ | 51 | 56.7 | 62.7 | 1 | 1 | 82.4 | 7.3 | MZ |
| SMBJ54A000S0NE | 54 | 60 | 66.3 | 1 | 1 | 87.1 | 6.9 | NE |
| SMBJ58A000S0NG | 58 | 64.4 | 71.2 | 1 | 1 | 93.6 | 6.5 | NG |
| SMBJ60A000S0NK | 60 | 66.7 | 73.7 | 1 | 1 | 96.8 | 6.2 | NK |
| SMBJ64A000S0NM | 64 | 71.1 | 78.6 | 1 | 1 | 103 | 5.9 | NM |
| SMBJ70A000S0NP | 70 | 77.8 | 86 | 1 | 1 | 113 | 5.3 | NP |
| SMBJ75A000S0NR | 75 | 83.3 | 92.1 | 1 | 1 | 121 | 5 | NR |
| SMBJ78A000S0NT | 78 | 86.7 | 95.8 | 1 | 1 | 126 | 4.8 | NT |
| SMBJ85A000S0NV | 85 | 94.4 | 104 | 1 | 1 | 137 | 4.4 | NV |
| SMBJ90A000S0NX | 90 | 100 | 111 | 1 | 1 | 146 | 4.1 | NX |
| SMBJ100A00S0NZ | 100 | 111 | 123 | 1 | 1 | 162 | 3.7 | NZ |

**UNIDIRECTIONAL TYPE-** ELECTRICAL CHARACTERISTICS - Ta = 25℃

| Part Code | Reverse Stand-off Voltage | Breakdown Voltage | | Test Current | Reverse Leakage Max. | Max. Clamp Voltage | Peak Pulse Current | Marking Code |
|---|---|---|---|---|---|---|---|---|
| | | $V_{BR}$ @ $I_T$ | | | | | | |
| | $V_{RWM}$ | Min | Max | $I_T$ | $I_R$ @ $V_{RWM}$ | $V_C$ @ $I_{PP}$ | $I_{PP}$ | |
| | V | V | V | mA | µA | V | A | |
| SMBJ110A00S0PE | 110 | 122 | 135 | 1 | 1 | 177 | 3.4 | PE |
| SMBJ120A00S0PG | 120 | 133 | 147 | 1 | 1 | 193 | 3.1 | PG |
| SMBJ130A00S0PK | 130 | 144 | 159 | 1 | 1 | 209 | 2.9 | PK |
| SMBJ150A00S0PM | 150 | 167 | 185 | 1 | 1 | 243 | 2.5 | PM |
| SMBJ160A00S0PP | 160 | 178 | 197 | 1 | 1 | 259 | 2.3 | PP |
| SMBJ170A00S0PR | 170 | 189 | 209 | 1 | 1 | 275 | 2.2 | PR |
| SMBJ180A00S0PT | 180 | 201 | 222 | 1 | 1 | 292 | 2.1 | PT |
| SMBJ190A00S0PA | 190 | 211 | 233 | 1 | 1 | 308 | 2.0 | PA |
| SMBJ200A00S0PV | 200 | 224 | 247 | 1 | 1 | 324 | 1.9 | PV |
| SMBJ210A00S0PB | 210 | 237 | 263 | 1 | 1 | 340 | 1.8 | PB |
| SMBJ220A00S0PX | 220 | 246 | 272 | 1 | 1 | 356 | 1.7 | PX |
| SMBJ250A00S0PZ | 250 | 279 | 309 | 1 | 1 | 405 | 1.5 | PZ |
| SMBJ300A00S0QE | 300 | 335 | 371 | 1 | 1 | 486 | 1.3 | QE |
| SMBJ350A00S0QG | 350 | 391 | 432 | 1 | 1 | 567 | 1.1 | QG |
| SMBJ400A00S0QK | 400 | 447 | 494 | 1 | 1 | 648 | 0.9 | QK |
| SMBJ440A00S0QM | 440 | 492 | 543 | 1 | 1 | 713 | 0.9 | QM |
| | | | | | | | | |
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**BIDIRECTIONAL TYPE-** ELECTRICAL CHARACTERISTICS - Ta = 25℃

| Part Code | Reverse Stand-off Voltage | Breakdown Voltage | | Test Current | Reverse Leakage Max. | Max. Clamp Voltage | Peak Pulse Current | Marking Code |
|---|---|---|---|---|---|---|---|---|
| | | $V_{BR}$ @ $I_T$ | | | | | | |
| | $V_{RWM}$ | Min | Max | $I_T$ | $I_R$ @ $V_{RWM}$ | $V_C$ @ $I_{PP}$ | $I_{PP}$ | |
| | V | V | V | mA | μA | V | A | |
| SMBJ050CA0S0AE | 5 | 6.4 | 7 | 10 | 800 | 9.2 | 65.3 | AE |
| SMBJ060CA0S0AG | 6 | 6.67 | 7.37 | 10 | 800 | 10.3 | 58.3 | AG |
| SMBJ065CA0S0AK | 6.5 | 7.22 | 7.98 | 10 | 500 | 11.2 | 53.6 | AK |
| SMBJ070CA0S0AM | 7 | 7.78 | 8.6 | 10 | 200 | 12 | 50 | AM |
| SMBJ075CA0S0AP | 7.5 | 8.33 | 9.2 | 1 | 100 | 12.9 | 46.6 | AP |
| SMBJ080CA0S0AR | 8 | 8.89 | 9.83 | 1 | 50 | 13.6 | 44.2 | AR |
| SMBJ085CA0S0AT | 8.5 | 9.44 | 10.4 | 1 | 20 | 14.4 | 41.7 | AT |
| SMBJ090CA0S0AV | 9 | 10 | 11.1 | 1 | 10 | 15.4 | 39 | AV |
| SMBJ10CA00S0AX | 10 | 11.1 | 12.3 | 1 | 5 | 17 | 35.3 | AX |
| SMBJ11CA00S0AZ | 11 | 12.2 | 13.5 | 1 | 1 | 18.2 | 33 | AZ |
| SMBJ12CA00S0BE | 12 | 13.3 | 14.7 | 1 | 1 | 19.9 | 30.2 | BE |
| SMBJ13CA00S0BG | 13 | 14.4 | 15.9 | 1 | 1 | 21.5 | 28 | BG |
| SMBJ14CA00S0BK | 14 | 15.6 | 17.2 | 1 | 1 | 23.2 | 25.9 | BK |
| SMBJ15CA00S0BM | 15 | 16.7 | 18.5 | 1 | 1 | 24.4 | 24.6 | BM |
| SMBJ16CA00S0BP | 16 | 17.8 | 19.7 | 1 | 1 | 26 | 23.1 | BP |
| SMBJ17CA00S0BR | 17 | 18.9 | 20.9 | 1 | 1 | 27.6 | 21.8 | BR |
| SMBJ18CA00S0BT | 18 | 20 | 22.1 | 1 | 1 | 29.2 | 20.6 | BT |
| SMBJ20CA00S0BV | 20 | 22.2 | 24.5 | 1 | 1 | 32.4 | 18.6 | BV |
| SMBJ22CA00S0BX | 22 | 24.4 | 26.9 | 1 | 1 | 35.5 | 16.9 | BX |
| SMBJ24CA00S0BZ | 24 | 26.7 | 29.5 | 1 | 1 | 38.9 | 15.5 | BZ |

**BIDIRECTIONAL TYPE-** ELECTRICAL CHARACTERISTICS - Ta = 25℃

| Part Code | Reverse Stand-off Voltage | Breakdown Voltage | | Test Current | Reverse Leakage Max. | Max. Clamp Voltage | Peak Pulse Current | Marking Code |
|---|---|---|---|---|---|---|---|---|
| | | $V_{BR}$ @ $I_T$ | | | | | | |
| | $V_{RWM}$ | Min | Max | $I_T$ | $I_R$ @ $V_{RWM}$ | $V_C$ @ $I_{PP}$ | $I_{PP}$ | |
| | V | V | V | mA | µA | V | A | |
| SMBJ26CA00S0CE | 26 | 28.9 | 31.9 | 1 | 1 | 42.1 | 14.3 | CE |
| SMBJ28CA00S0CG | 28 | 31.1 | 34.4 | 1 | 1 | 45.4 | 13.3 | CG |
| SMBJ30CA00S0CK | 30 | 33.3 | 36.8 | 1 | 1 | 48.4 | 12.4 | CK |
| SMBJ33CA00S0CM | 33 | 36.7 | 40.6 | 1 | 1 | 53.3 | 11.3 | CM |
| SMBJ36CA00S0CP | 36 | 40 | 44.2 | 1 | 1 | 58.1 | 10.4 | CP |
| SMBJ40CA00S0CR | 40 | 44.4 | 49.1 | 1 | 1 | 64.5 | 9.3 | CR |
| SMBJ43CA00S0CT | 43 | 47.8 | 52.8 | 1 | 1 | 69.4 | 8.7 | CT |
| SMBJ45CA00S0CV | 45 | 50 | 55.3 | 1 | 1 | 72.7 | 8.3 | CV |
| SMBJ48CA00S0CX | 48 | 53.3 | 58.9 | 1 | 1 | 77.4 | 7.8 | CX |
| SMBJ51CA00S0CZ | 51 | 56.7 | 62.7 | 1 | 1 | 82.4 | 7.3 | CZ |
| SMBJ54CA00S0DE | 54 | 60 | 66.3 | 1 | 1 | 87.1 | 6.9 | DE |
| SMBJ58CA00S0DG | 58 | 64.4 | 71.2 | 1 | 1 | 93.6 | 6.5 | DG |
| SMBJ60CA00S0DK | 60 | 66.7 | 73.7 | 1 | 1 | 96.8 | 6.2 | DK |
| SMBJ64CA00S0DM | 64 | 71.1 | 78.6 | 1 | 1 | 103 | 5.9 | DM |
| SMBJ70CA00S0DP | 70 | 77.8 | 86 | 1 | 1 | 113 | 5.3 | DP |
| SMBJ75CA00S0DR | 75 | 83.3 | 92.1 | 1 | 1 | 121 | 5 | DR |
| SMBJ78CA00S0DT | 78 | 86.7 | 95.8 | 1 | 1 | 126 | 4.8 | DT |
| SMBJ85CA00S0DV | 85 | 94.4 | 104 | 1 | 1 | 137 | 4.4 | DV |
| SMBJ90CA00S0DX | 90 | 100 | 111 | 1 | 1 | 146 | 4.1 | DX |
| SMBJ100CA0S0DZ | 100 | 111 | 123 | 1 | 1 | 162 | 3.7 | DZ |

**BIDIRECTIONAL TYPE-** ELECTRICAL CHARACTERISTICS - Ta = 25℃

| Part Code | Reverse Stand-off Voltage | Breakdown Voltage | | Test Current | Reverse Leakage Max. | Max. Clamp Voltage | Peak Pulse Current | Marking Code |
|---|---|---|---|---|---|---|---|---|
| | | $V_{BR}$ @ $I_T$ | | | | | | |
| | $V_{RWM}$ | Min | Max | $I_T$ | $I_R$ @ $V_{RWM}$ | $V_C$ @ $I_{PP}$ | $I_{PP}$ | |
| | V | V | V | mA | μA | V | A | |
| SMBJ110CA0S0EE | 110 | 122 | 135 | 1 | 1 | 177 | 3.4 | EE |
| SMBJ120CA0S0EG | 120 | 133 | 147 | 1 | 1 | 193 | 3.1 | EG |
| SMBJ130CA0S0EK | 130 | 144 | 159 | 1 | 1 | 209 | 2.9 | EK |
| SMBJ150CA0S0EM | 150 | 167 | 185 | 1 | 1 | 243 | 2.5 | EM |
| SMBJ160CA0S0EP | 160 | 178 | 197 | 1 | 1 | 259 | 2.3 | EP |
| SMBJ170CA0S0ER | 170 | 189 | 209 | 1 | 1 | 275 | 2.2 | ER |
| SMBJ180CA0S0ET | 180 | 201 | 222 | 1 | 1 | 292 | 2.1 | ET |
| SMBJ190CA0S0EC | 190 | 211 | 233 | 1 | 1 | 308 | 2.0 | EC |
| SMBJ200CA0S0EV | 200 | 224 | 247 | 1 | 1 | 324 | 1.9 | EV |
| SMBJ210CA0S0ED | 210 | 237 | 263 | 1 | 1 | 340 | 1.8 | ED |
| SMBJ220CA0S0EX | 220 | 246 | 272 | 1 | 1 | 356 | 1.7 | EX |
| SMBJ250CA0S0EZ | 250 | 279 | 309 | 1 | 1 | 405 | 1.5 | EZ |
| SMBJ300CA0S0FE | 300 | 335 | 371 | 1 | 1 | 486 | 1.3 | FE |
| SMBJ350CA0S0FG | 350 | 391 | 432 | 1 | 1 | 567 | 1.1 | FG |
| SMBJ400CA0S0FK | 400 | 447 | 494 | 1 | 1 | 648 | 0.9 | FK |
| SMBJ440CA0S0FM | 440 | 492 | 543 | 1 | 1 | 713 | 0.9 | FM |
| | | | | | | | | |
| | | | | | | | | |

Note: For Bidirectional Type Having $V_{RWM}$ Of 10V And Less, The $I_R$ Limit Is Double.

**RATINGS AND CHARACTERISTICS CURVES**- FOR REFERENCE ONLY, $T_A$=25℃ UNLESS OTHERWISE SPECIFIED.

Figure 1. Peak Pulse Power Rating Curve

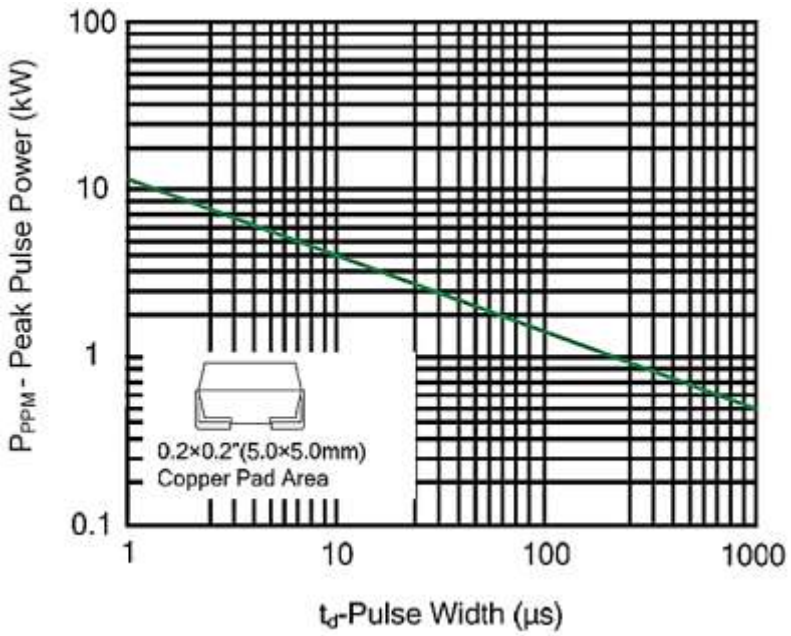
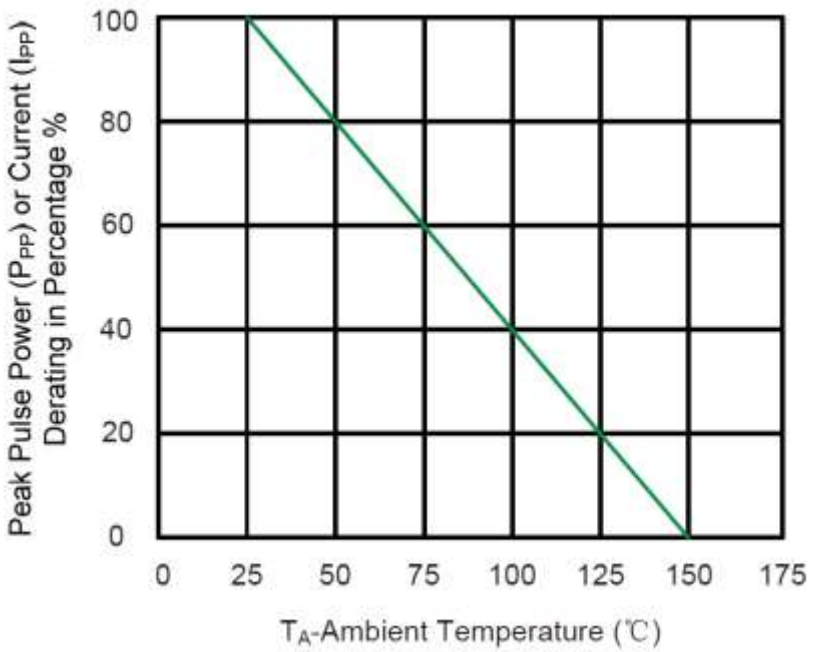



Figure 2. Pulse Derating Curve



**RATINGS AND CHARACTERISTICS CURVES**- FOR REFERENCE ONLY, TA=25℃ UNLESS OTHERWISE SPECIFIED.

Figure 3. Pulse Waveform

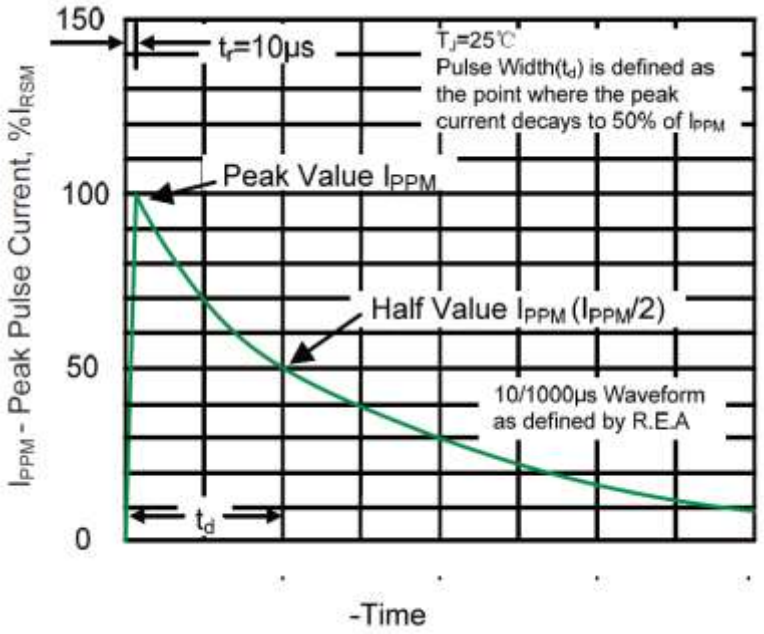
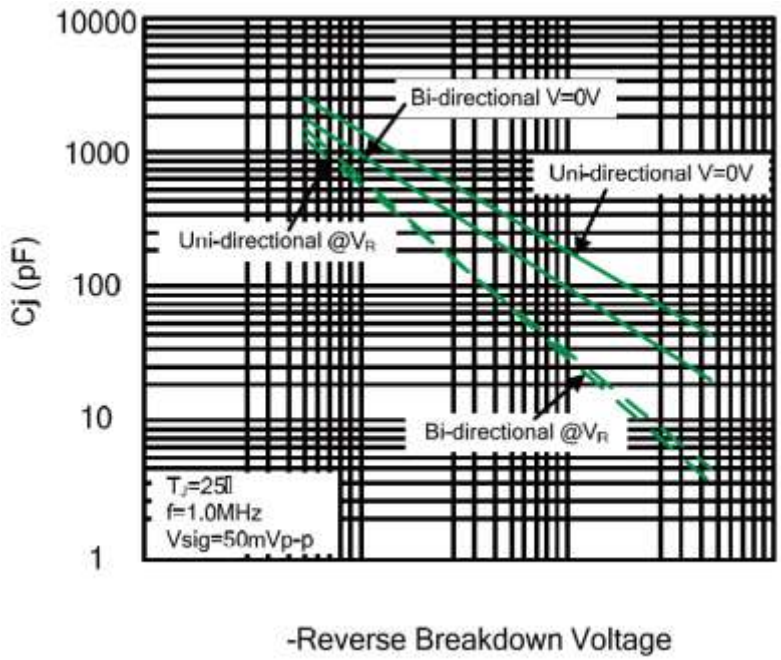



Figure 4. Typical Junction Capacitance



**RATINGS AND CHARACTERISTICS CURVES**- FOR REFERENCE ONLY, TA=25℃ UNLESS OTHERWISE SPECIFIED.

Figure 5. Steady State Power Dissipation Derating curve

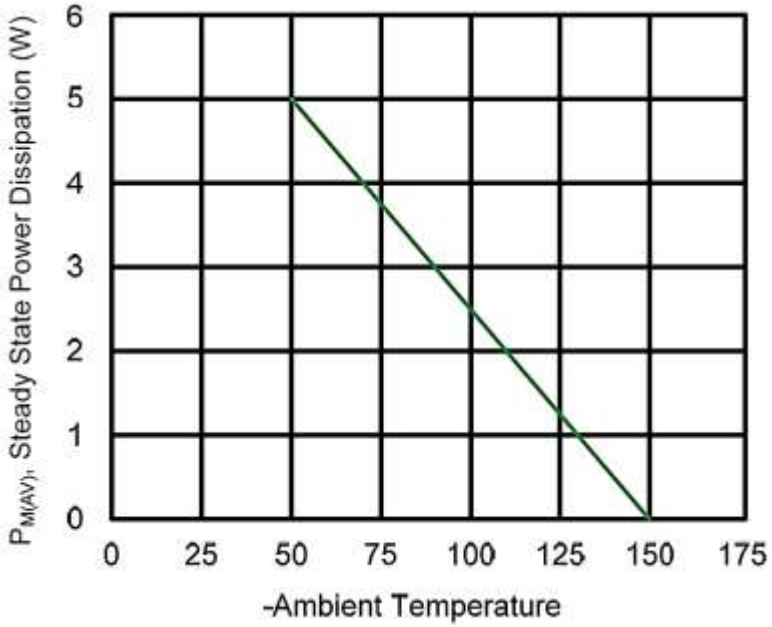
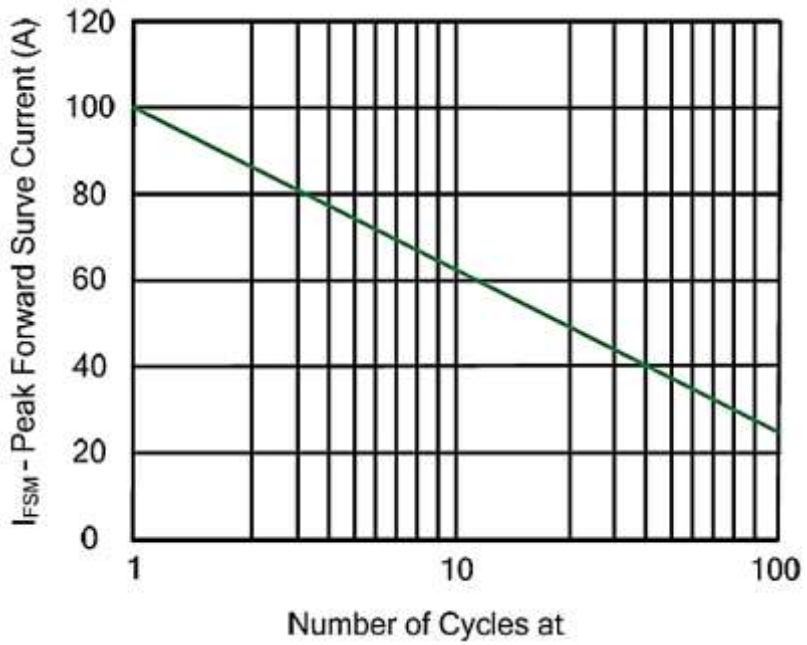
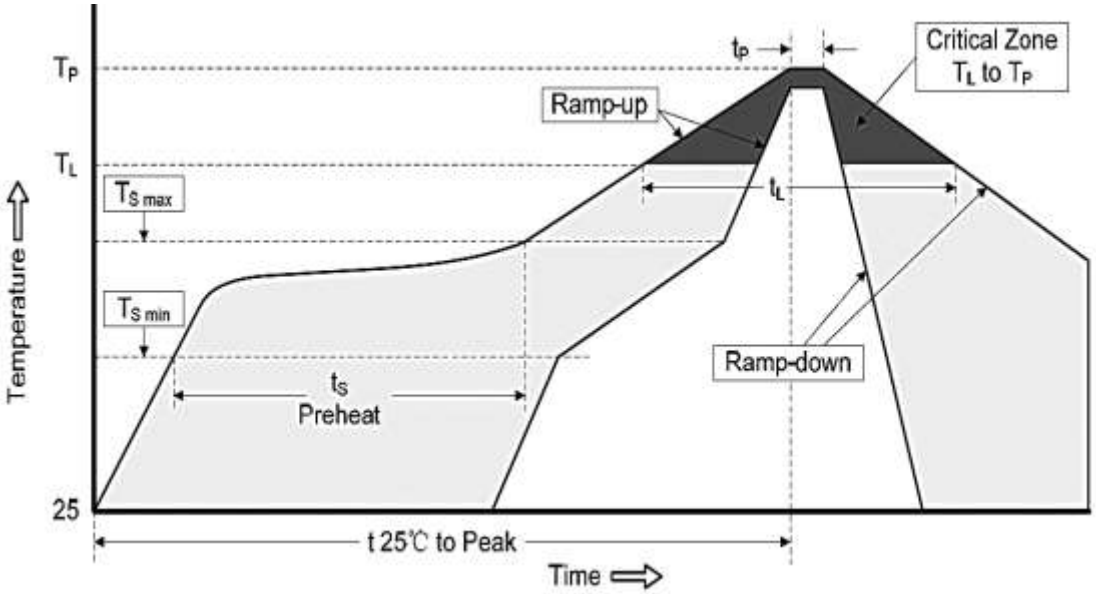



Figure 6. Maximum Non-Repetitive
Forward Surge Current Uni-Directional Only

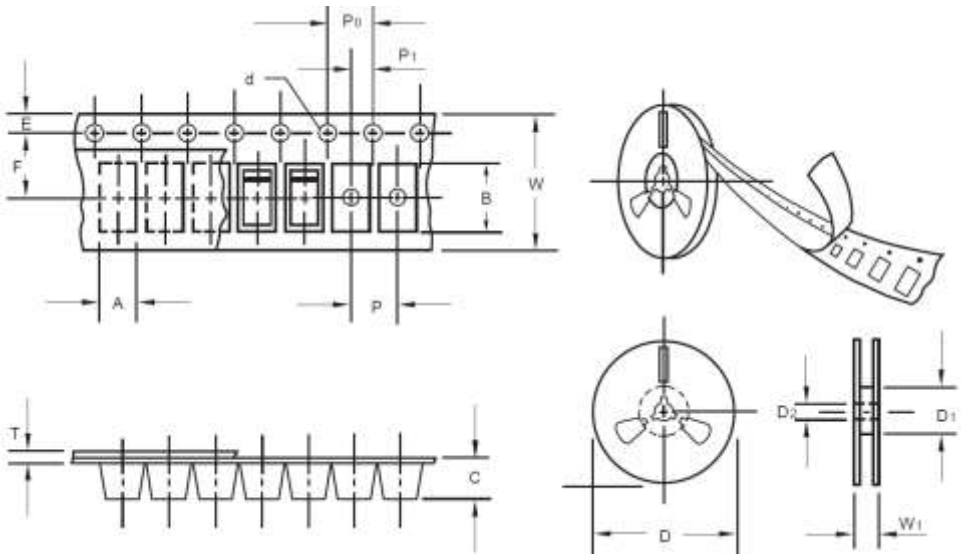


**RECOMMENDED SOLDERING PARAMETERS** – FOR REFERENCE ONLY




| PROFILE FEATURE | | PB-FREE ASSEMBLY |
|---|---|---|
| Average Ramp-up Rate ($T_L$ to $T_p$) | | 3℃/second Max |
| Preheat | Temperature Min (Ts Min.) | 150℃ |
| | Temperature Max (Ts Max.) | 200℃ |
| | Time (ts Min. to ts Max.) | 60 ~ 180 seconds |
| $T_S$ max to $T_L$ Ramp-up Rate | | 3℃/second Max |
| Time maintained above | Temperature ($T_L$) | 217℃ |
| | Time ($t_L$) | 60 ~ 150 seconds |
| Peak/Classification Temperature (Tp) | | 260 ℃ |
| Time within 5℃ of actual Peak Temperature (tp) | | 20 ~ 40 seconds |
| Ramp-down Rate | | 6 ℃ /Second Max. |
| Time 25 ℃ to Peak Temperature | | 8 Minutes Max. |
| Suggest reflow times | | 3 Times Max. |

**TAPE/REEL** - Unit: mm, All Devices are packed in accordance with EIA standard RS-481-A and specifications




| ITEM | SYMBOL | TOLERANCE | SMB/DO-214AA |
|---|---|---|---|
| Carrier width | A | 0.1 | 3.81 |
| Carrier Length | B | 0.1 | 5.41 |
| Carrier Depth | C | 0.1 | 2.42 |
| Sprocket hole | d | 0.05 | 1.50 |
| 13”Reel outside diameter | D | 2.0 | 330.00 |
| 13”Reel inner diameter | D1 | Min. | 50.00 |
| Feed hole diameter | D2 | 0.5 | 13.00 |
| Sprocket hole position | E | 0.1 | 1.75 |
| Punch hole position | F | 0.1 | 5.55 |
| Punch hole pitch | P | 0.1 | 8.00 |
| Sprocket hole pitch | P0 | 0.1 | 4.00 |
| Embossment center | P1 | 0.1 | 2.00 |
| Overall tape thickness | T | 0.1 | 0.30 |
| Tape width | W | 0.3 | 12.00 |
| Reel width | W1 | 1.0 | 12.30 |
| Qty./Reel (pcs) | 3000 | | |

## IMPORTANT NOTES AND DISCLAIMER

1. ROHS COMPLIANCE: The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU RoHS Directive (EU) 2015/863 EC (RoHS3). RoHS Test Report for this product can be obtained can be obtained at Download Center.
2. REACH COMPLIANCE: REACH substances of high concern (SVHCs) information is available for this product. Since the European Chemical Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future, REACH Test Report for this product can be obtained can be obtained at Download Center.
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