

|                                  |   |   |
|----------------------------------|---|---|
| SPECIFICATION SHEET NO.          | S1210- SMDJ20CA00SDEV   |   |
| ORIGINAL MFG/PART NO.            | MDD Diodes/SMDJ20CA   |   |
| NEXTGEN PART CODE                | SMDJ20CA00SDEV  | Indicate This Code For <a href="#">RFQ</a> /Order |
| DATE                             | Dec. 10, 2025   |   |
| REVISION                         | A3  | Updated With Most Recent Data                     |
| DESCRIPTION AND MAIN PARAMETRICS | <p>SMD Transient Voltage Suppressor (TVs) Diodes, SMDJ Series<br/>           Case SMC/DO-214AB, 2 Pads,<br/>           Bidirectional Type, Reverse Stand-off Voltage (VR) 20V ,<br/>           Peak Pulse Power: 3000 Watts, Peak Pulse Current: 92.6A 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)</p> |   |
| CUSTOMER                         |   |   |
| CUSTOMER PART NUMBER             |   |   |
| CROSS REF. PART NUMBER           |   |   |
| MEMO                             |   |   |

|                               |   |  |   |
|-------------------------------|---|--|---|
| <b>VENDOR APPROVE</b>         |   |  |   |
| Issued/Checked/Approved       |  |  |  |
| Effective Date: Dec. 10, 2025 |   |  |   |

|                         |  |
|-------------------------|--|
| <b>CUSTOMER APPROVE</b> |  |
|                         |  |
| Date:                   |  |

## MAIN FEATURE

- Space Low Profile Package
- Built-in Strain Relief
- Glass Passivated Junction
- Low Inductance
- 3000W Peak Pulse Power Capability With a 10/1000  $\mu$ s Waveform, Repetitive Rate (Duty Cycle):0.01 %
- Typical IR less than 1 $\mu$ A Above 10V
- Excellent Clamping Capability
- Very Fast Response Time
- High Temperature Soldering: 260°C/10 Seconds At Terminals
- Plastic Package Has Underwriters Laboratory Flammability 94V-0
- Cross Competitors Parts and More.
- RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863) and Halogen Free (HF)



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



## APPLICATION

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

## ELECTRICAL CHARACTERISTICS

- See Page 6 ~Page 17 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 SMDJ20CA00SDEV For RFQ and Order.

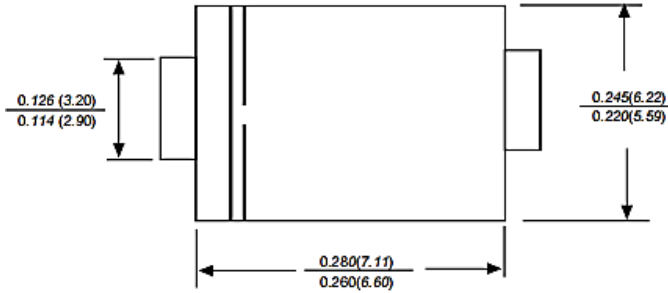
PART CODE GUIDE

**RFQ**  
Request For Quotation

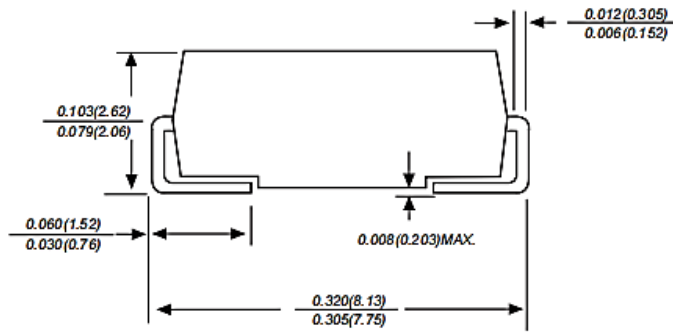
| CODE | NAME                           | KEY SPECIFICATION OPTION  |
|------|--------------------------------|---|
| SMDJ | Product Series Code            | SMD Transient Voltage Suppressors (TVs) Diodes, Case SMC/DO-214AB, 2 Pads,                            |
| 20CA | Mode code                      | 20CA: Working Peak Reverse Voltage 20V, Bidirectional Polarity Type<br>Peak Pulse Current: 92.6A Max. |
| 00S  | Internal Control Code          | Letter or Digits (A~Z, a~z or 0~9)  |
| DEV  | Marking Code                   | Marking "DEV"   |
| 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 SMC/DO-214AB Outline

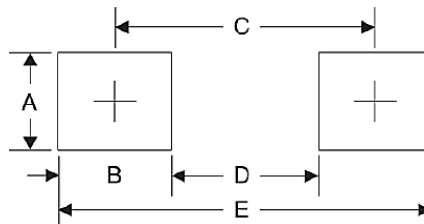
Top View



Side View



Recommend Pad Layout



| SYMBOL      | A    | B    | C     | D    | E     |
|-------------|------|------|-------|------|-------|
| Unit (Inch) | 0.17 | 0.16 | 0.311 | 0.15 | 0.472 |
| Unit (mm)   | 4.30 | 4.10 | 7.90  | 3.80 | 12.0  |

**MECHANICAL DATA**

| CASE   | TERMINALS                                     | POLARITY                                 | MOUNTING POSITION | Weight per piece           | MARKING                     |
|--|---|--|-------------------|----------------------------|-----------------------------|
| JEDEC<br>SMC/DO-214AB<br>Molded Plastic Body | Solderable per<br>MIL-STD-750,<br>Method 2026 | Polarity<br>Symbol<br>Marking on<br>Body | Any               | 0.003 ounce,<br>0.095grams | See<br>Marking<br>Code List |

**MAX. RATING & CHARACTERISTICS** - Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter  | SYMBOLS | VALUE      | UNITS |
|--|---------|------------|-------|
| Peak Pulse Power Dissipation At 10/1000µs Waveform<br>(Note 1, Note 2)                                 | P PPM   | 3000       | W     |
| Maximum Instantaneous Forward Voltage At 100A For<br>Unidirectional Only                               | V F     | 3.5        | V     |
| Steady State Power Dissipation at TA=50°C  | P M(AV) | 6.5        | W     |
| Peak Forward Surge Current, 8.3ms Single Half Sine-<br>Wave Superimposed on Rated Load, (JEDEC Method) | I FSM   | 300        | A     |
| Typical Thermal Resistance Junction to Lead  | R θJL   | 15         | °C/W  |
| Typical Thermal Resistance Junction to Ambient   | R θJA   | 75         | °C/W  |
| Operating Junction Temperature Range   | T J     | -65 ~ +150 | °C    |
| Storage Temperature Range  | T STG   | -65 ~ +150 | °C    |

**Notes**

1. Non-repetitive current pulse, per Fig 3 and derated above TA=25 °C per Fig 2
2. Measured on 8.3ms single half sine wave or equivalent square wave for unidirectional device only,  
duty cycle=4 per minute maximum.

## UNIDIRECTIONAL TYPE- ELECTRICAL CHARACTERISTICS - Ta = 25°C

| Part Code      | Reverse Stand-off Voltage V <sub>R</sub> (V) | Breakdown Voltage V <sub>BR</sub> @ I <sub>T</sub> (V) |       | Test Current I <sub>T</sub> (mA) | Max. Clamp Voltage V <sub>C</sub> @ I <sub>PP</sub> (V) | Peak Pulse Current I <sub>PP</sub> (A) | Reverse Leakage I <sub>R</sub> @ V <sub>R</sub> (μA) | Marking Code |
|----------------|--|--|-------|----------------------------------|---|--|--|--------------|
|                |  | Min.   | Max.  |                                  |   |  |  |              |
| SMDJ050A00SRDE | 5.0  | 6.40   | 7.00  | 10                               | 9.2   | 326.1                                  | 800  | RDE          |
| SMDJ060A00SRDG | 6.0  | 6.67   | 7.37  | 10                               | 10.3  | 291.3                                  | 800  | RDG          |
| SMDJ065A00SRDK | 6.5  | 7.22   | 7.98  | 10                               | 11.2  | 267.9                                  | 500  | RDK          |
| SMDJ070A00SPDM | 7.0  | 7.78   | 8.60  | 10                               | 12.0  | 250.0                                  | 200  | PDM          |
| SMDJ075A00SPDP | 7.5  | 8.33   | 9.21  | 1                                | 12.9  | 232.6                                  | 100  | PDP          |
| SMDJ080A00SPDR | 8.0  | 8.89   | 9.83  | 1                                | 13.6  | 220.6                                  | 50   | PDR          |
| SMDJ085A00SPDT | 8.5  | 9.44   | 10.40 | 1                                | 14.4  | 208.3                                  | 20   | PDT          |
| SMDJ090A00SPDV | 9.0  | 10.00  | 11.10 | 1                                | 15.4  | 194.8                                  | 10   | PDV          |
| SMDJ10A000SPDX | 10.0   | 11.10  | 12.30 | 1                                | 17.0  | 176.5                                  | 5  | PDX          |
| SMDJ11A000SPDZ | 11.0   | 12.20  | 13.50 | 1                                | 18.2  | 164.8                                  | 2  | PDZ          |
| SMDJ12A000SPEE | 12.0   | 13.30  | 14.70 | 1                                | 19.9  | 150.8                                  | 2  | PEE          |
| SMDJ13A000SPEG | 13.0   | 14.40  | 15.90 | 1                                | 21.5  | 139.5                                  | 2  | PEG          |
| SMDJ14A000SPEK | 14.0   | 15.60  | 17.20 | 1                                | 23.2  | 129.3                                  | 2  | PEK          |
| SMDJ15A000SPEM | 15.0   | 16.70  | 18.50 | 1                                | 24.4  | 123.0                                  | 2  | PEM          |
| SMDJ16A000SPEP | 16.0   | 17.80  | 19.70 | 1                                | 26.0  | 115.4                                  | 2  | PEP          |
| SMDJ17A000SPER | 17.0   | 18.90  | 20.90 | 1                                | 27.6  | 108.7                                  | 2  | PER          |
| SMDJ18A000SPET | 18.0   | 20.00  | 22.10 | 1                                | 29.2  | 102.7                                  | 2  | PET          |
| SMDJ20A000SPEV | 20.0   | 22.20  | 24.50 | 1                                | 32.4  | 92.6                                   | 2  | PEV          |
| SMDJ22A000SPEX | 22.0   | 24.40  | 26.90 | 1                                | 35.5  | 84.5                                   | 2  | PEX          |
| SMDJ24A000SPEZ | 24.0   | 26.70  | 29.50 | 1                                | 38.9  | 77.1                                   | 2  | PEZ          |

UNIDIRECTIONAL TYPE- ELECTRICAL CHARACTERISTICS - Ta = 25°C

| Part Code      | Reverse Stand-off Voltage V R (V) | Breakdown Voltage V BR @ I T (V) |        | Test Current I T (mA) | Max. Clamp Voltage V C @ I PP (V) | Peak Pulse Current I PP (A) | Reverse Leakage I R @ V R (μA) | Marking Code |
|----------------|-----------------------------------|----------------------------------|--------|-----------------------|-----------------------------------|-----------------------------|--------------------------------|--------------|
|                |                                   | Min.                             | Max.   |                       |                                   |                             |                                |              |
| SMDJ26A000SPFE | 26.0                              | 28.90                            | 31.90  | 1                     | 42.1                              | 71.3                        | 2                              | PFE          |
| SMDJ28A000SPFG | 28.0                              | 31.10                            | 34.40  | 1                     | 45.4                              | 66.1                        | 2                              | PFG          |
| SMDJ30A000SPFK | 30.0                              | 33.30                            | 36.80  | 1                     | 48.4                              | 62.0                        | 2                              | PFK          |
| SMDJ33A000SPFM | 33.0                              | 36.70                            | 40.60  | 1                     | 53.3                              | 56.3                        | 2                              | PFM          |
| SMDJ36A000SPFP | 36.0                              | 40.00                            | 44.20  | 1                     | 58.1                              | 51.6                        | 2                              | PFP          |
| SMDJ40A000SPFR | 40.0                              | 44.40                            | 49.10  | 1                     | 64.5                              | 46.5                        | 2                              | PFR          |
| SMDJ43A000SPFT | 43.0                              | 47.80                            | 52.80  | 1                     | 69.4                              | 43.2                        | 2                              | PFT          |
| SMDJ45A000SPFV | 45.0                              | 50.00                            | 55.30  | 1                     | 72.7                              | 41.3                        | 2                              | PFV          |
| SMDJ48A000SPFX | 48.0                              | 53.30                            | 58.90  | 1                     | 77.4                              | 38.8                        | 2                              | PFX          |
| SMDJ51A000SPFZ | 51.0                              | 56.70                            | 62.70  | 1                     | 82.4                              | 36.4                        | 2                              | PFZ          |
| SMDJ54A000SRGE | 54.0                              | 60.00                            | 66.30  | 1                     | 87.1                              | 34.4                        | 2                              | RGE          |
| SMDJ58A000SPGG | 58.0                              | 64.40                            | 71.20  | 1                     | 93.6                              | 32.1                        | 2                              | PGG          |
| SMDJ60A000SPGK | 60.0                              | 66.70                            | 73.70  | 1                     | 96.8                              | 31.0                        | 2                              | PGK          |
| SMDJ64A000SPGM | 64.0                              | 71.10                            | 78.60  | 1                     | 103.0                             | 29.1                        | 2                              | PGM          |
| SMDJ70A000SPGP | 70.0                              | 77.80                            | 86.00  | 1                     | 113.0                             | 26.5                        | 2                              | PGP          |
| SMDJ75A000SPGR | 75.0                              | 83.30                            | 92.10  | 1                     | 121.0                             | 24.8                        | 2                              | PGR          |
| SMDJ78A000SPGT | 78.0                              | 86.70                            | 95.80  | 1                     | 126.0                             | 23.8                        | 2                              | PGT          |
| SMDJ85A000SPGV | 85.0                              | 94.40                            | 104.00 | 1                     | 137.0                             | 21.9                        | 2                              | PGV          |
| SMDJ90A000SPGX | 90.0                              | 100.00                           | 111.00 | 1                     | 146.0                             | 20.5                        | 2                              | PGX          |
| SMDJ100A00SPGZ | 100.0                             | 111.00                           | 123.00 | 1                     | 162.0                             | 18.5                        | 2                              | PGZ          |

UNIDIRECTIONAL TYPE- ELECTRICAL CHARACTERISTICS - Ta = 25°C

| Part Code      | Reverse Stand-off Voltage V <sub>R</sub> (V) | Breakdown Voltage V <sub>BR</sub> @ I <sub>T</sub> (V) |        | Test Current I <sub>T</sub> (mA) | Max. Clamp Voltage V <sub>C</sub> @ I <sub>PP</sub> (V) | Peak Pulse Current I <sub>PP</sub> (A) | Reverse Leakage I <sub>R</sub> @ V <sub>R</sub> (μA) | Marking Code |
|----------------|--|--|--------|----------------------------------|---|--|--|--------------|
|                |  | Min.   | Max.   |                                  |   |  |  |              |
| SMDJ110A00SPHE | 110.0  | 122.00   | 135.00 | 1                                | 177.0   | 16.9                                   | 2  | PHE          |
| SMDJ120A00SPHG | 120.0  | 133.00   | 147.00 | 1                                | 193.0   | 15.5                                   | 2  | PHG          |
| SMDJ130A00SPHK | 130.0  | 144.00   | 159.00 | 1                                | 209.0   | 14.4                                   | 2  | PHK          |
| SMDJ150A00SPHM | 150.0  | 167.00   | 185.00 | 1                                | 243.0   | 12.3                                   | 2  | PHM          |
| SMDJ160A00SPHP | 160.0  | 178.00   | 197.00 | 1                                | 259.0   | 11.6                                   | 2  | PHP          |
| SMDJ170A00SPHR | 170.0  | 189.00   | 209.00 | 1                                | 275.0   | 10.9                                   | 2  | PHR          |

**Note:**

1. For parts without A , the V<sub>BR</sub> is ± 10%, and V<sub>C</sub> is 5% higher than A parts.
2. For bidirectional type having V<sub>R</sub> of 10 volts and less, the I<sub>R</sub> limit is double.

**BIDIRECTIONAL TYPE- ELECTRICAL CHARACTERISTICS - Ta = 25°C**

| Part Code             | Reverse Stand-off Voltage V <sub>R</sub> (V) | Breakdown Voltage V <sub>BR</sub> @ I <sub>T</sub> (V) |       | Test Current I <sub>T</sub> (mA) | Max. Clamp Voltage V <sub>C</sub> @ I <sub>PP</sub> (V) | Peak Pulse Current I <sub>PP</sub> (A) | Reverse Leakage I <sub>R</sub> @ V <sub>R</sub> (μA) | Marking Code |
|-----------------------|--|--|-------|----------------------------------|---|--|--|--------------|
|                       |  | Min.   | Max.  |                                  |   |  |  |              |
| SMDJ050CA0SDDE        | 5.0  | 6.40   | 7.00  | 10                               | 9.2   | 326.1                                  | 800  | DDE          |
| SMDJ060CA0SDDG        | 6.0  | 6.67   | 7.37  | 10                               | 10.3  | 291.3                                  | 800  | DDG          |
| SMDJ065CA0SDDK        | 6.5  | 7.22   | 7.98  | 10                               | 11.2  | 267.9                                  | 500  | DDK          |
| SMDJ070CA0SDDM        | 7.0  | 7.78   | 8.60  | 10                               | 12.0  | 250.0                                  | 200  | DDM          |
| SMDJ075CA0SDDP        | 7.5  | 8.33   | 9.21  | 1                                | 12.9  | 232.6                                  | 100  | DDP          |
| SMDJ080CA0SDDR        | 8.0  | 8.89   | 9.83  | 1                                | 13.6  | 220.6                                  | 50   | DDR          |
| SMDJ085CA0SDDT        | 8.5  | 9.44   | 10.40 | 1                                | 14.4  | 208.3                                  | 20   | DDT          |
| SMDJ090CA0SDDV        | 9.0  | 10.00  | 11.10 | 1                                | 15.4  | 194.8                                  | 10   | DDV          |
| SMDJ10CA00SDDX        | 10.0   | 11.10  | 12.30 | 1                                | 17.0  | 176.5                                  | 5  | DDX          |
| SMDJ11CA00SDDZ        | 11.0   | 12.20  | 13.50 | 1                                | 18.2  | 164.8                                  | 2  | DDZ          |
| SMDJ12CA00SDEE        | 12.0   | 13.30  | 14.70 | 1                                | 19.9  | 150.8                                  | 2  | DEE          |
| SMDJ13CA00SDEG        | 13.0   | 14.40  | 15.90 | 1                                | 21.5  | 139.5                                  | 2  | DEG          |
| SMDJ14CA00SDEK        | 14.0   | 15.60  | 17.20 | 1                                | 23.2  | 129.3                                  | 2  | DEK          |
| SMDJ15CA00SDEM        | 15.0   | 16.70  | 18.50 | 1                                | 24.4  | 123.0                                  | 2  | DEM          |
| SMDJ16CA00SDEP        | 16.0   | 17.80  | 19.70 | 1                                | 26.0  | 115.4                                  | 2  | DEP          |
| SMDJ17CA00SDER        | 17.0   | 18.90  | 20.90 | 1                                | 27.6  | 108.7                                  | 2  | DER          |
| SMDJ18CA00SDET        | 18.0   | 20.00  | 22.10 | 1                                | 29.2  | 102.7                                  | 2  | DET          |
| <b>SMDJ20CA00SDEV</b> | 20.0   | 22.20  | 24.50 | 1                                | 32.4  | 92.6                                   | 2  | DEV          |
| SMDJ22CA00SDEX        | 22.0   | 24.40  | 26.90 | 1                                | 35.5  | 84.5                                   | 2  | DEX          |
| SMDJ24CA00SDEZ        | 24.0   | 26.70  | 29.50 | 1                                | 38.9  | 77.1                                   | 2  | DEZ          |

**BIDIRECTIONAL TYPE- ELECTRICAL CHARACTERISTICS - Ta = 25°C**

| Part Code       | Reverse Stand-off Voltage V <sub>R</sub> (V) | Breakdown Voltage V <sub>BR</sub> @ I <sub>T</sub> (V) |        | Test Current I <sub>T</sub> (mA) | Max. Clamp Voltage V <sub>C</sub> @ I <sub>PP</sub> (V) | Peak Pulse Current I <sub>PP</sub> (A) | Reverse Leakage I <sub>R</sub> @ V <sub>R</sub> (μA) | Marking Code |
|-----------------|--|--|--------|----------------------------------|---|--|--|--------------|
|                 |  | Min.   | Max.   |                                  |   |  |  |              |
| SMDJ26CA00SDFE  | 26.0   | 28.90  | 31.90  | 1                                | 42.1  | 71.3                                   | 2  | DFE          |
| SMDJ28CA00SDFG  | 28.0   | 31.10  | 34.40  | 1                                | 45.4  | 66.1                                   | 2  | DFG          |
| SMDJ30CA00SDFK  | 30.0   | 33.30  | 36.80  | 1                                | 48.4  | 62.0                                   | 2  | DFK          |
| SMDJ33CA00SDFM  | 33.0   | 36.70  | 40.60  | 1                                | 53.3  | 56.3                                   | 2  | DFM          |
| SMDJ36CA00SDFP  | 36.0   | 40.00  | 44.20  | 1                                | 58.1  | 51.6                                   | 2  | DFP          |
| SMDJ40CA00SDFR  | 40.0   | 44.40  | 49.10  | 1                                | 64.5  | 46.5                                   | 2  | DFR          |
| SMDJ43CA00SDFT  | 43.0   | 47.80  | 52.80  | 1                                | 69.4  | 43.2                                   | 2  | DFT          |
| SMDJ45CA00SDFV  | 45.0   | 50.00  | 55.30  | 1                                | 72.7  | 41.3                                   | 2  | DFV          |
| SMDJ48CA00SDFX  | 48.0   | 53.30  | 58.90  | 1                                | 77.4  | 38.8                                   | 2  | DFX          |
| SMDJ51CA00SDFZ  | 51.0   | 56.70  | 62.70  | 1                                | 82.4  | 36.4                                   | 2  | DFZ          |
| SMDJ54CA00SDGE  | 54.0   | 60.00  | 66.30  | 1                                | 87.1  | 34.4                                   | 2  | DGE          |
| SMDJ58CA00SDGG  | 58.0   | 64.40  | 71.20  | 1                                | 93.6  | 32.1                                   | 2  | DGG          |
| SMDJ60CA00SDGK  | 60.0   | 66.70  | 73.70  | 1                                | 96.8  | 31.0                                   | 2  | DGK          |
| SMDJ64CA00SDGM  | 64.0   | 71.10  | 78.60  | 1                                | 103.0   | 29.1                                   | 2  | DGM          |
| SMDJ70CA00SDGP  | 70.0   | 77.80  | 86.00  | 1                                | 113.0   | 26.5                                   | 2  | DGP          |
| SMDJ75CA00SDGR  | 75.0   | 83.30  | 92.10  | 1                                | 121.0   | 24.8                                   | 2  | DGR          |
| SMDJ78CA00SDGT  | 78.0   | 86.70  | 95.80  | 1                                | 126.0   | 23.8                                   | 2  | DGT          |
| SMDJ85CA00SDGV  | 85.0   | 94.40  | 104.00 | 1                                | 137.0   | 21.9                                   | 2  | DGV          |
| SMDJ90CA00SDGX  | 90.0   | 100.00   | 111.00 | 1                                | 146.0   | 20.5                                   | 2  | DGX          |
| SMDJ100CA00SDGZ | 100.0  | 111.00   | 123.00 | 1                                | 162.0   | 18.5                                   | 2  | DGZ          |

**BIDIRECTIONAL TYPE- ELECTRICAL CHARACTERISTICS - Ta = 25°C**

| Part Code      | Reverse Stand-off Voltage V <sub>R</sub> (V) | Breakdown Voltage V <sub>BR</sub> @ I <sub>T</sub> (V) |        | Test Current I <sub>T</sub> (mA) | Max. Clamp Voltage V <sub>C</sub> @ I <sub>PP</sub> (V) | Peak Pulse Current I <sub>PP</sub> (A) | Reverse Leakage I <sub>R</sub> @ V <sub>R</sub> (μA) | Marking Code |
|----------------|--|--|--------|----------------------------------|---|--|--|--------------|
|                |  | Min.   | Max.   |                                  |   |  |  |              |
| SMDJ110CA0SDHE | 110.0  | 122.00   | 135.00 | 1                                | 177.0   | 16.9                                   | 2  | DHE          |
| SMDJ120CA0SDHG | 120.0  | 133.00   | 147.00 | 1                                | 193.0   | 15.5                                   | 2  | DHG          |
| SMDJ130CA0SDHK | 130.0  | 144.00   | 159.00 | 1                                | 209.0   | 14.4                                   | 2  | DHK          |
| SMDJ150CA0SDHM | 150.0  | 167.00   | 185.00 | 1                                | 243.0   | 12.3                                   | 2  | DHM          |
| SMDJ160CA0SDHP | 160.0  | 178.00   | 197.00 | 1                                | 259.0   | 11.6                                   | 2  | DHP          |
| SMDJ170CA0SDHR | 170.0  | 189.00   | 209.00 | 1                                | 275.0   | 10.9                                   | 2  | DHR          |

**Note:**

1. For parts without A , the V<sub>BR</sub> is ± 10%, and V<sub>C</sub> is 5% higher than A parts.
2. For bidirectional type having V<sub>R</sub> of 10 volts and less, the I<sub>R</sub> limit is double.

RATINGS AND CHARACTERISTICS CURVES- For Reference Only, Ta=25°C Unless Otherwise Specified.

Figure 1. Peak Pulse Power Rating Curve



Figure 2. Pulse Derating Curve



RATINGS AND CHARACTERISTICS CURVES- For Reference Only,  $T_a=25^\circ\text{C}$  Unless Otherwise Specified.

Figure 3. Pulse Waveform

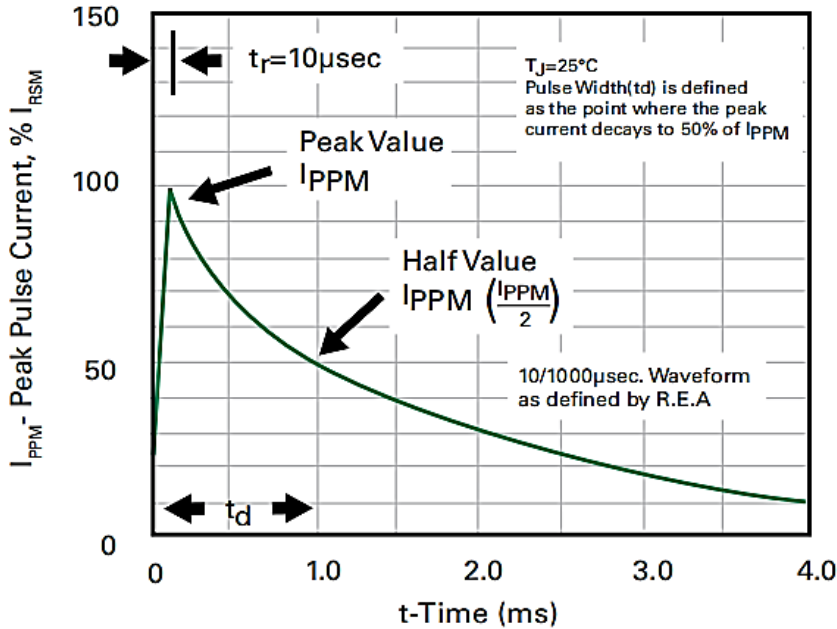
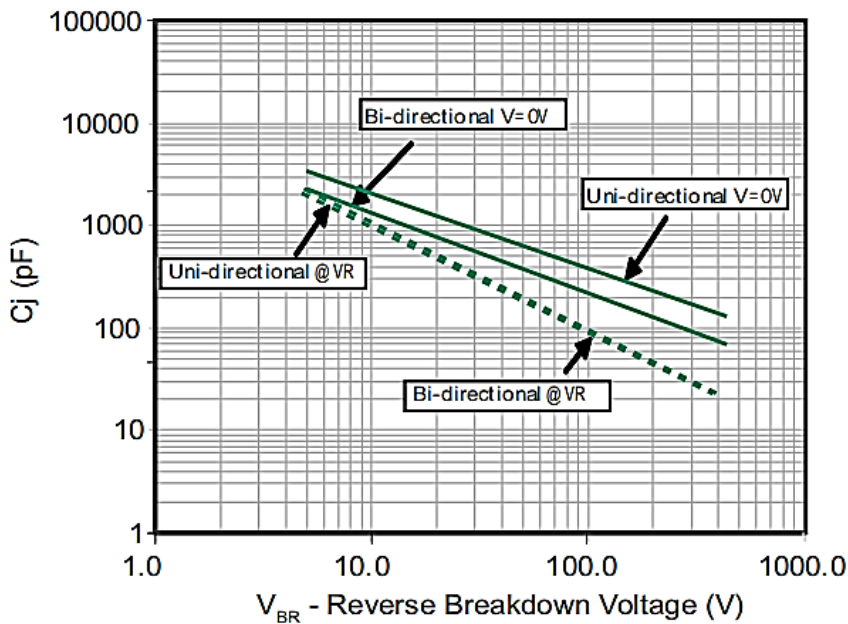


Figure 4 - Typical Junction Capacitance



RATINGS AND CHARACTERISTICS CURVES- For Reference Only, Ta=25°C Unless Otherwise Specified.

Figure 5 - Steady State Power Derating Curve

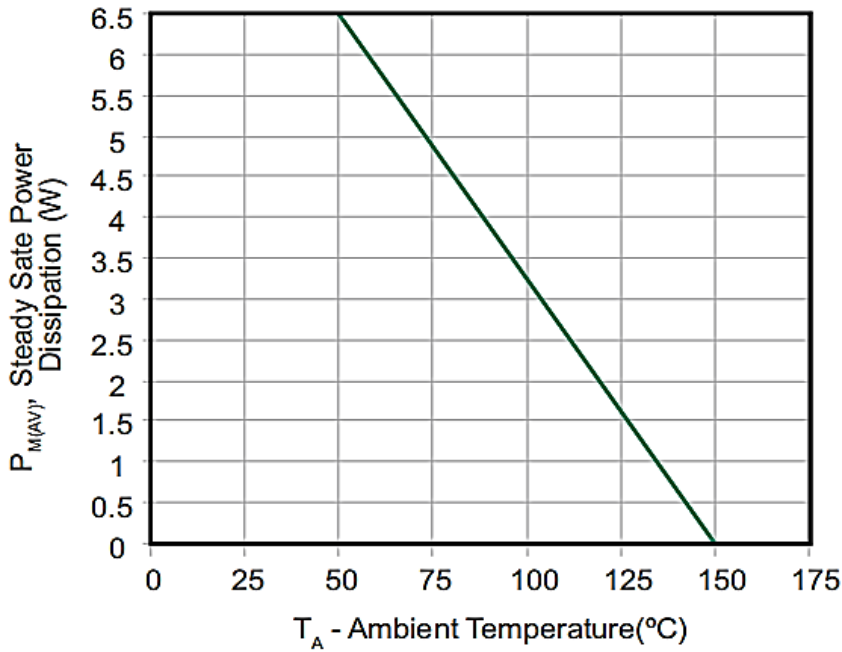
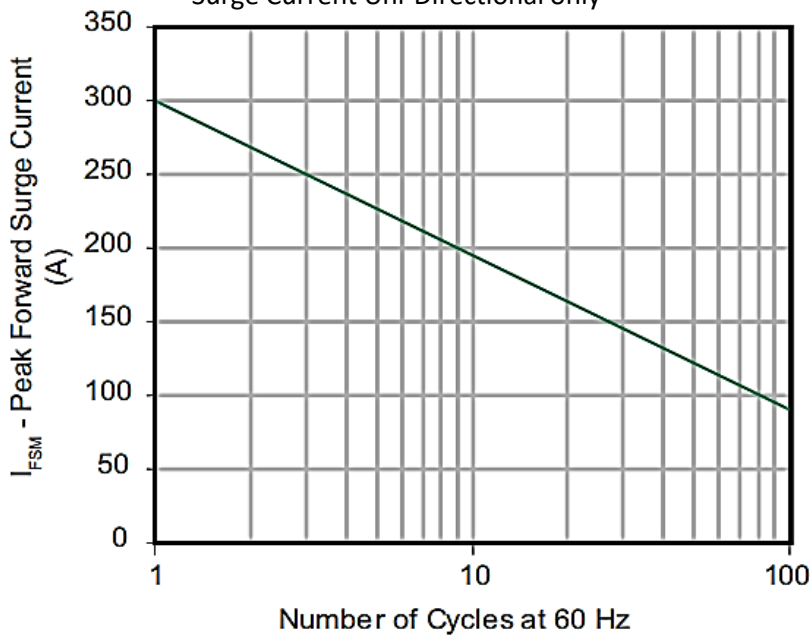


Figure 6 - Maximum Non-Repetitive Peak Forward Surge Current Uni-Directional only



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Figure 7 - Steady State Power Derating  
Dissipation Derating Curve



Figure 8 - Maximum Non-Repetitive Forward  
Surge Current Uni-Directional only



## RECOMMENDED SOLDERING PARAMETERS – FOR REFERENCE ONLY



| PROFILE FEATURE                                      |                                  | PB-FREE ASSEMBLY  |
|--|----------------------------------|-------------------|
| Average Ramp-up Rate ( $T_L$ Max to $T_p$ )          |                                  | 3°C/second Max    |
| Preheat  | Temperature Min ( $T_s$ Min.)    | 150°C             |
|  | Temperature Max ( $T_s$ Max.)    | 200°C             |
|  | Time ( $t_s$ Min. to $t_s$ Max.) | 60 ~ 180 seconds  |
| Time maintained above                                | Temperature ( $T_L$ )            | 217°C             |
|  | Time ( $t_L$ )                   | 60 ~ 150 seconds  |
| Peak/Classification Temperature ( $T_p$ )            |                                  | 260 °C            |
| Time within 5°C of actual Peak Temperature ( $t_p$ ) |                                  | 20 ~ 40 seconds   |
| Ramp-down Rate                                       |                                  | 6 °C /Second Max. |
| Time 25 °C 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 | SMC/DO-214AB |
|---------------------------|--------|-----------|--------------|
| Carrier width             | A      | 0.1       | 6.15         |
| Carrier Length            | B      | 0.1       | 8.41         |
| Carrier Depth             | C      | 0.1       | 2.42         |
| Sprocket hole             | d      | 0.05      | 1.50         |
| 13" Reel outside diameter | D      | 2.0       | 330.0        |
| 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       | 7.50         |
| 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       | 0.25         |
| Tape width                | W      | 0.3       | 16.00        |
| Reel width                | W1     | 1.0       | 16.50        |
| Qty./Reel (pcs)           | 3000   |           |              |

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## 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 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 at Download Center.
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