



V_Z : 3.3 - 200 Volts
P_D : 5 Watts

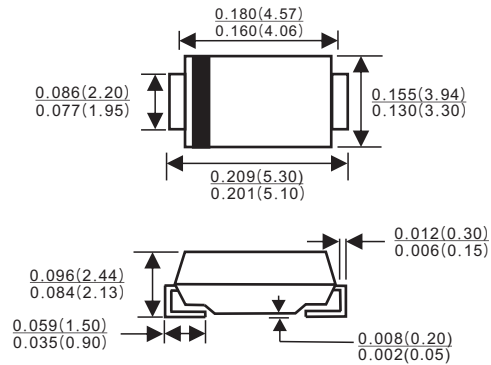
Features

- ✧ Complete Voltage Range 3.3 to 200 Volts
- ✧ High peak reverse power dissipation
- ✧ High reliability
- ✧ Low leakage current
- ✧ Pb / RoHS Free

Mechanical Data

- ✧ Case : SMB (DO-214AA) Molded plastic
- ✧ Epoxy : UL94V-O rate flame retardant
- ✧ Lead : Lead formed for Surface mount
- ✧ Polarity : Color band denotes cathode end
- ✧ Mounting position : Any
- ✧ Weight : 0.093 gram

SMB/DO-214AA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified

| Rating | Symbol | Value | Unit |
|---|-----------------------------------|---------------|------|
| Power Dissipation at T _L = 25 °C | P _D | 5 | W |
| Maximum Forward Voltage at I _F = 1.0 A | V _F | 1.2 | V |
| Thermal Resistance, Junction to Ambient (Note 1) | R _{θJA} | 90 | °C/W |
| Thermal Resistance, Junction to Lead (Note 1) | R _{θJL} | 25 | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | - 65 to + 150 | °C |

Note :

- (1) When mounted on FR4 PC board (1 oz Cu) with recommended footprint.

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

| Microsemi Part Number | | Regulator Voltage (V _Z) | Test Current (I _{ZT}) | Maximum Dynamic Impedance (Z _Z) (A&B Suffix) | Maximum Reverse Current (I _R) @ V _R | I _R Test Voltage (V _R) (Non-Suffix & A Suffix) | I _R Test Voltage (V _R) (B,C,D Suffix) | Maximum Regulator Current (I _{ZM}) (B,C,D Suffix) | Maximum Dynamic Knee Impedance Z _{zk} @ 1.0 mA (A,B,C,D Suffix) | Maximum Surge Current (I _{ZSM}) | Maximum Voltage Regulation (ΔV _Z) (A,B,C,D Suffix) |
|-----------------------|---------|-------------------------------------|---------------------------------|---|---|--|---|--|--|---|---|
| TYPE | MARKING | V | mAdc | OHMS | μA | V | V | mA | OHMS | AMPS | VOLTS |
| SMBJ5333B | 333B | 3.3 | 380 | 3.0 | 300 | 1.0 | 1.0 | 1440 | 400 | 20 | 0.85 |
| SMBJ5334B | 334B | 3.6 | 350 | 2.5 | 150 | 1.0 | 1.0 | 1320 | 500 | 18.7 | 0.80 |
| SMBJ5335B | 335B | 3.9 | 320 | 2.0 | 50 | 1.0 | 1.0 | 1220 | 500 | 17.6 | 0.54 |
| SMBJ5336B | 336B | 4.3 | 290 | 2.0 | 10 | 1.0 | 1.0 | 1100 | 500 | 16.4 | 0.49 |
| SMBJ5337B | 337B | 4.7 | 260 | 2.0 | 5.0 | 1.0 | 1.0 | 1010 | 450 | 15.3 | 0.44 |
| SMBJ5338B | 338B | 5.1 | 240 | 1.5 | 1.0 | 1.0 | 1.0 | 930 | 400 | 14.4 | 0.39 |
| SMBJ5339B | 339B | 5.6 | 220 | 1.0 | 1.0 | 2.0 | 2.0 | 865 | 400 | 13.4 | 0.25 |
| SMBJ5340B | 340B | 6.0 | 200 | 1.0 | 1.0 | 3.0 | 3.0 | 790 | 300 | 12.7 | 0.19 |
| SMBJ5341B | 341B | 6.2 | 200 | 1.0 | 1.0 | 3.0 | 3.0 | 765 | 200 | 12.4 | 0.10 |
| SMBJ5342B | 342B | 6.8 | 175 | 1.0 | 10 | 4.9 | 5.2 | 700 | 200 | 11.5 | 0.15 |
| SMBJ5343B | 343B | 7.5 | 175 | 1.5 | 10 | 6.4 | 5.7 | 630 | 200 | 10.7 | 0.15 |
| SMBJ5344B | 344B | 8.2 | 150 | 1.5 | 10 | 6.9 | 6.2 | 580 | 200 | 10 | 0.20 |
| SMBJ5345B | 345B | 8.7 | 150 | 2.0 | 10 | 6.25 | 6.6 | 545 | 200 | 9.5 | 0.20 |
| SMBJ5346B | 346B | 9.1 | 150 | 2.0 | 7.5 | 6.6 | 6.9 | 520 | 150 | 9.2 | 0.22 |
| SMBJ5347B | 347B | 10 | 125 | 2.0 | 5.0 | 7.2 | 7.6 | 475 | 125 | 8.6 | 0.22 |
| SMBJ5348B | 348B | 11 | 125 | 2.5 | 5.0 | 8.0 | 8.4 | 430 | 125 | 8.0 | 0.25 |
| SMBJ5349B | 349B | 12 | 100 | 2.5 | 2.0 | 8.6 | 9.1 | 395 | 125 | 7.5 | 0.25 |
| SMBJ5350B | 350B | 13 | 100 | 2.5 | 1.0 | 9.4 | 9.9 | 265 | 100 | 7.0 | 0.25 |
| SMBJ5351B | 351B | 14 | 100 | 2.5 | 1.0 | 10.1 | 10.6 | 340 | 75 | 6.7 | 0.25 |
| SMBJ5352B | 352B | 15 | 75 | 2.5 | 1.0 | 10.8 | 11.5 | 315 | 75 | 6.3 | 0.25 |
| SMBJ5353B | 353B | 16 | 75 | 2.5 | 1.0 | 11.5 | 12.2 | 295 | 75 | 6.0 | 0.30 |
| SMBJ5354B | 354B | 17 | 70 | 2.5 | 0.5 | 12.2 | 12.3 | 280 | 75 | 5.8 | 0.35 |
| SMBJ5355B | 355B | 18 | 65 | 2.5 | 0.5 | 13 | 13.7 | 264 | 75 | 5.5 | 0.40 |
| SMBJ5356B | 356B | 19 | 65 | 3.0 | 0.5 | 13.7 | 14.4 | 250 | 75 | 5.3 | 0.40 |
| SMBJ5357B | 357B | 20 | 65 | 3.0 | 0.5 | 14.4 | 15.2 | 237 | 75 | 5.1 | 0.40 |
| SMBJ5358B | 358B | 22 | 50 | 3.5 | 0.5 | 15.8 | 16.7 | 216 | 75 | 4.7 | 0.45 |
| SMBJ5359B | 359B | 24 | 50 | 3.5 | 0.5 | 17.3 | 18.2 | 198 | 100 | 4.4 | 0.55 |
| SMBJ5360B | 360B | 25 | 50 | 4.0 | 0.5 | 18 | 19 | 190 | 110 | 4.3 | 0.55 |
| SMBJ5361B | 361B | 27 | 50 | 5.0 | 0.5 | 19.4 | 20.6 | 176 | 120 | 4.1 | 0.60 |
| SMBJ5362B | 362B | 28 | 50 | 6.0 | 0.5 | 20.1 | 21.2 | 170 | 130 | 3.9 | 0.60 |
| SMBJ5363B | 363B | 30 | 40 | 8.0 | 0.5 | 21.6 | 22.8 | 158 | 140 | 3.7 | 0.60 |
| SMBJ5364B | 364B | 33 | 40 | 10 | 0.5 | 23.8 | 25.1 | 144 | 150 | 3.5 | 0.63 |
| SMBJ5365B | 365B | 36 | 30 | 11 | 0.5 | 25.9 | 27.4 | 132 | 160 | 3.3 | 0.65 |
| SMBJ5366B | 366B | 39 | 30 | 14 | 0.5 | 28.1 | 29.7 | 122 | 170 | 3.1 | 0.65 |
| SMBJ5367B | 367B | 43 | 30 | 20 | 0.5 | 31 | 32.7 | 110 | 190 | 2.8 | 0.70 |
| SMBJ5368B | 368B | 47 | 25 | 25 | 0.5 | 33.8 | 35.8 | 100 | 210 | 2.7 | 0.80 |
| SMBJ5369B | 369B | 51 | 25 | 27 | 0.5 | 36.7 | 38.8 | 93 | 230 | 2.5 | 0.90 |
| SMBJ5370B | 370B | 56 | 20 | 35 | 0.5 | 40.3 | 42.5 | 86 | 280 | 2.3 | 1.00 |
| SMBJ5371B | 371B | 60 | 20 | 40 | 0.5 | 43 | 45.5 | 79 | 350 | 2.2 | 1.20 |
| SMBJ5372B | 372B | 62 | 20 | 42 | 0.5 | 44.6 | 47.1 | 76 | 400 | 2.1 | 1.35 |
| SMBJ5373B | 373B | 68 | 20 | 44 | 0.5 | 49 | 51.7 | 70 | 500 | 2.0 | 1.50 |
| SMBJ5374B | 374B | 75 | 20 | 45 | 0.5 | 54 | 56 | 63 | 620 | 1.9 | 1.60 |
| SMBJ5375B | 375B | 82 | 15 | 65 | 0.5 | 59 | 62.2 | 58 | 720 | 1.8 | 1.80 |
| SMBJ5376B | 376B | 87 | 15 | 75 | 0.5 | 63 | 66 | 54.5 | 760 | 1.7 | 2.00 |
| SMBJ5377B | 377B | 91 | 15 | 75 | 0.5 | 65.5 | 69.2 | 52.5 | 760 | 1.6 | 2.20 |
| SMBJ5378B | 378B | 100 | 12 | 90 | 0.5 | 72 | 76 | 47.5 | 800 | 1.5 | 2.30 |
| SMBJ5379B | 379B | 110 | 12 | 125 | 0.5 | 79.2 | 83.6 | 43 | 1000 | 1.4 | 2.50 |
| SMBJ5380B | 380B | 120 | 10 | 170 | 0.5 | 86.4 | 91.2 | 39.5 | 1150 | 1.3 | 2.50 |
| SMBJ5381B | 381B | 130 | 10 | 190 | 0.5 | 93.6 | 93.8 | 36.6 | 1250 | 1.2 | 2.50 |
| SMBJ5382B | 382B | 140 | 8.0 | 230 | 0.5 | 101 | 106 | 34 | 1500 | 1.2 | 2.50 |
| SMBJ5383B | 383B | 150 | 8.0 | 330 | 0.5 | 108 | 114 | 31.5 | 1500 | 1.1 | 3.00 |
| SMBJ5384B | 384B | 160 | 8.0 | 350 | 0.5 | 115 | 122 | 29.4 | 1660 | 1.1 | 3.00 |
| SMBJ5385B | 385B | 170 | 8.0 | 380 | 0.5 | 122 | 129 | 28 | 1750 | 1.0 | 3.00 |
| SMBJ5386B | 386B | 180 | 5.0 | 430 | 0.5 | 130 | 137 | 26.4 | 1750 | 1.0 | 4.00 |
| SMBJ5387B | 387B | 190 | 5.0 | 450 | 0.5 | 137 | 144 | 25 | 1850 | 0.9 | 5.00 |
| SMBJ5388B | 388B | 200 | 5.0 | 480 | 0.5 | 144 | 152 | 23.6 | 1850 | 0.9 | 5.00 |

Notes : (1) Suffix " B " indicates ± 5% tolerance, suffix " A " indicates ± 10% tolerance.

(2) The surge current (I_{ZSM}) is specified as the maximum peak of a non- recurrent half-sin wave of 8.3 ms duration.

(3) Voltage regulation (V_Z) is the difference between the voltage measured at 10% and 50% of I_{ZM}

RATING AND CHARACTERISTIC CURVES (SMBJ5333B - SMBJ5388B)

Fig. 1 POWER DERATING CURVE

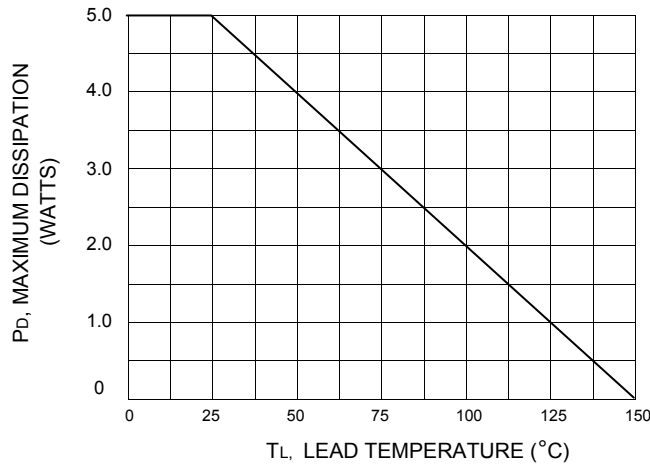
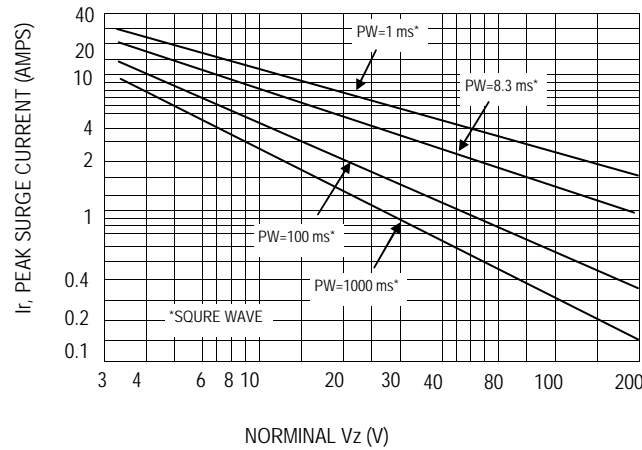


Fig.2 Maximum Non-Repetitive Surg Current versus Nominal Zener Voltage



| PACKAGE | SPQ/PCS | CARTON SPQ/PCS | CARTON SIZE/CM | CARTON GW/KG | CARTON NW/KG |
|---------|-----------|----------------|----------------|--------------|--------------|
| SMB | 3000/REEL | 48000 | 36X35.8X36.5 | 12.00 | 11.00 |

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[3SMAJ5946B-TP](#) [3SMAJ5950B-TP](#) [3SMBJ5925B-TP](#) [MMSZ5230BQ-13-F](#) [MMSZ5232BQ-13-F](#) [BZX84C7V5](#) [3SMAJ5945B-TP](#)
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