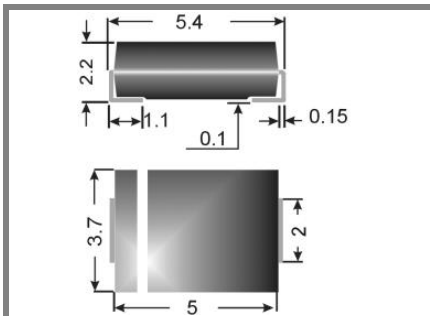


Z3 SMB 1 ... Z3 SMB 200 (3W)



Surface mount diode

Zener silicon diodes

Z3 SMB 1 ... Z3 SMB 200

Maximum Power Dissipation: 3 W

Nominal Z-voltage: 1 to 200 V

Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0
- Standard Zener voltage tolerance is graded to the international E 24 (5%) standard. Other voltage tolerances and higher Zener voltages on request.

Mechanical Data

- Plastic case: SMB / DO-214AA
- Weight approx.: 0,1 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 3000 pieces per reel

1) Mounted on P.C. board with 50 mm² copper pads at each terminal

2) Tested with pulses

3) The Z2SMC 1 is a diode operated in forward. Hence, the index of all parameters should be "F" instead of "Z". The cathode, indicated by a white ring is to be connected to the negative pole.

| Absolute Maximum Ratings | | $T_A = 25^\circ\text{C}$, unless otherwise specified | |
|--------------------------|---|---|-------|
| Symbol | Conditions | Values | Units |
| P_{tot} | Power dissipation, $T_A = 50^\circ\text{C}^{1)}$ | 3 | W |
| P_{ZSM} | Non repetitive peak power dissipation, $t < 10\text{ ms}$ | 60 | W |
| R_{thA} | Max. thermal resistance junction to ambient | 60 | K/W |
| R_{thT} | Max. thermal resistance junction to terminal | 15 | K/W |
| T_j | Operating junction temperature | - 50 ... + 150 | °C |
| T_s | Storage temperature | - 50 ... + 150 | °C |

| Type | Zener Voltage ²⁾ $V_Z@I_{ZT}$ | | Test curr. I_{ZT} mA | Dyn. Resistance $Z_{ZT}@I_{ZT}$ Ω | Temp. Coeffiz. of V_Z a_{VZ} $10^{-4}/^\circ\text{C}$ | Z- curr. ¹⁾ $T_A = 50^\circ\text{C}$ | | |
|-----------------------|---|------------------------|------------------------------|--|---|---|------------|-------------------------|
| | $V_{Z\text{min}}$ V | $V_{Z\text{max}}$ V | | | | I_R μA | V_R V | $I_{Z\text{max}}$ mA |
| Z3SMB 1 ³⁾ | 0,71 | 0,82 | 100 | 0,5 (<1) | - 26 ... - 16 | 1 | > 1,5 | 455 |
| Z3SMB 6,2 | 5,8 | 6,6 | 100 | 1 (<2) | - 1 ... + 6 | 1 | > 2 | 417 |
| Z3SMB 6,8 | 6,4 | 7,2 | 100 | 1 (<2) | 0 ... + 7 | 1 | > 2 | 380 |
| Z3SMB 7,5 | 7 | 7,9 | 100 | 1 (<2) | + 3 ... + 8 | 1 | > 3,5 | 345 |
| Z3SMB 8,2 | 7,7 | 8,7 | 100 | 1 (<2) | + 3 ... + 8 | 1 | > 3,5 | 313 |
| Z3SMB 9,1 | 8,5 | 9,6 | 50 | 2 (<4) | + 5 ... + 9 | 1 | > 5 | 283 |
| Z3SMB 10 | 9,4 | 10,6 | 50 | 4 (<7) | + 5 ... + 10 | 1 | > 7 | 236 |
| Z3SMB 11 | 10,4 | 11,6 | 50 | 5 (<10) | + 5 ... + 10 | 1 | > 7 | 213 |
| Z3SMB 12 | 11,4 | 12,7 | 50 | 5 (<10) | + 5 ... + 10 | 1 | > 10 | 192 |
| Z3SMB 13 | 12,4 | 14,1 | 50 | 6 (<15) | + 6 ... + 11 | 1 | > 10 | 175 |
| Z3SMB 15 | 13,8 | 15,6 | 25 | 6 (<15) | + 6 ... + 11 | 1 | > 10 | 157 |
| Z3SMB 16 | 15,3 | 17,1 | 25 | 6 (<15) | + 6 ... + 11 | 1 | > 10 | 142 |
| Z3SMB 18 | 16,8 | 19,1 | 25 | 7 (<15) | + 6 ... + 11 | 1 | > 12 | 129 |
| Z3SMB 20 | 18,8 | 21,2 | 25 | 7 (<15) | + 6 ... + 11 | 1 | > 12 | 117 |
| Z3SMB 22 | 20,8 | 23,3 | 25 | 7 (<15) | + 6 ... + 11 | 1 | > 14 | 104 |
| Z3SMB 24 | 22,8 | 25,6 | 25 | 8 (<15) | + 6 ... + 11 | 1 | > 14 | 94 |
| Z3SMB 27 | 25,1 | 28,9 | 25 | 8 (<15) | + 6 ... + 11 | 1 | > 17 | 86 |
| Z3SMB 30 | 28 | 32 | 25 | 16 (<30) | + 6 ... + 11 | 1 | > 17 | 79 |
| Z3SMB 33 | 31 | 35 | 10 | 20 (<40) | + 6 ... + 11 | 1 | > 20 | 73 |
| Z3SMB 36 | 34 | 38 | 10 | 24 (<40) | + 7 ... + 12 | 1 | > 20 | 65 |
| Z3SMB 39 | 37 | 41 | 10 | 24 (<40) | + 7 ... + 12 | 1 | > 24 | 60 |
| Z3SMB 43 | 40 | 46 | 10 | 25 (<60) | + 7 ... + 12 | 1 | > 24 | 56 |
| Z3SMB 47 | 44 | 50 | 10 | 25 (<60) | + 7 ... + 12 | 1 | > 28 | 50 |
| Z3SMB 51 | 48 | 54 | 10 | 25 (<80) | + 8 ... + 13 | 1 | > 28 | 45 |
| Z3SMB 56 | 52 | 60 | 10 | 30 (<100) | + 8 ... + 13 | 1 | > 34 | 42 |
| Z3SMB 62 | 58 | 66 | 10 | 30 (<100) | + 8 ... + 13 | 1 | > 41 | 34 |
| Z3SMB 68 | 64 | 72 | 10 | 40 (<150) | + 9 ... + 13 | 1 | > 41 | 31 |
| Z3SMB 75 | 70 | 79 | 5 | 60 (<150) | + 9 ... + 13 | 1 | > 50 | 28 |
| Z3SMB 82 | 77 | 88 | 5 | 80 (<200) | + 9 ... + 13 | 1 | > 50 | 26 |
| Z3SMB 91 | 85 | 96 | 5 | 80 (<200) | + 9 ... + 13 | 1 | > 60 | 24 |
| Z3SMB 100 | 94 | 106 | 5 | 90 (<250) | + 9 ... + 13 | 1 | > 60 | 21 |
| Z3SMB 110 | 104 | 116 | 5 | 100(<250) | + 9 ... + 13 | 1 | > 75 | 19 |
| Z3SMB 120 | 114 | 127 | 5 | 110(<300) | + 9 ... + 13 | 1 | > 75 | 18 |
| Z3SMB 130 | 124 | 141 | 5 | 120(<350) | + 9 ... + 13 | 1 | > 90 | 16 |
| Z3SMB 150 | 138 | 156 | 5 | 150(<350) | + 9 ... + 13 | 1 | > 90 | 14 |
| Z3SMB 160 | 153 | 171 | 5 | | | | | |
| Z3SMB 180 | 168 | 191 | 5 | | | | | |
| Z3SMB 200 | 188 | 212 | 5 | | | | | |