

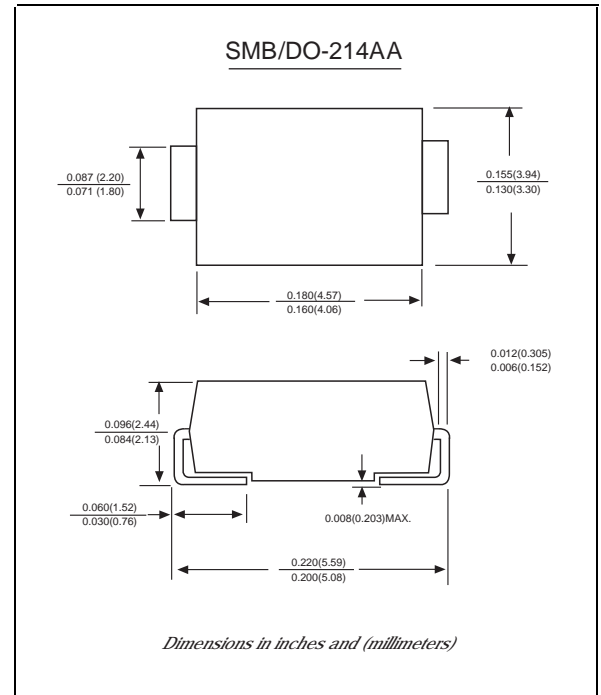
1SMB3EZ4.7~1SMB3EZ51
3000mW Zener Diodes

Features

- ◆ Low zener impedance
- ◆ Low regulation factor
- ◆ Glass passivated junction
- ◆ High temperature soldering guaranteed:
260°C/10 seconds at terminals

Mechanical Data

Case: JEDEC DO-214AA molded glass body
 Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
 Polarity: Color band denotes cathode end
 Mounting Position: Any
 Weight: 0.003 ounce, 0.093 grams



Maximum Ratings And Electrical Characteristics

Ratings at 25 C ambient temperature unless otherwise specified.

| Parameter | Symbol | Value | Units |
|--|----------------|--------------|------------------|
| Steady State Power Dissipation at $T_L=75\text{ }^\circ\text{C}$ (Note 1) | P_D | 3.0 | Watts |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 15 | Amps |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55 to + 150 | $^\circ\text{C}$ |

NOTES:

- A. Mounted on 5.0mm² (.013mm thick) land areas.
- B. Measured on 8.3ms, and single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.
- C. Tolerance and Type Number Designation. The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.

Electrical Characteristics

(at T_A = 25°C unless otherwise noted)

| Part Number | Nominal Zener Voltage | | | Maximum Zener Impedance | | | | Max Reverse Leakage Current | | Marking Code |
|----------------|----------------------------------|--------|--------|-------------------------|-----------------|-----------------|-----------------|---------------------------------|------|--------------|
| | V _Z @ I _{ZT} | | | Z _{ZT} | I _{ZT} | Z _{ZK} | I _{ZK} | I _R @ V _R | | |
| | Nom. V | Min. V | Max. V | Ω | mA | Ω | mA | μA | V | |
| 3.0 Watt ZENER | | | | | | | | | | |
| 1SMB3EZ4.7 | 4.7 | 4.46 | 4.94 | 2 | 79.8 | 500 | 1 | 5 | 1.5 | 4V7B |
| 1SMB3EZ5.6 | 5.6 | 5.32 | 5.88 | 2 | 134 | 700 | 1 | 5 | 3 | 5V6B |
| 1SMB3EZ6.2 | 6.2 | 5.89 | 6.51 | 2 | 120 | 700 | 1 | 5 | 4 | 6V2B |
| 1SMB3EZ6.8 | 6.8 | 6.46 | 7.14 | 2 | 110 | 700 | 1 | 5 | 4 | 6V8B |
| 1SMB3EZ7.5 | 7.5 | 7.13 | 7.88 | 2 | 100 | 700 | 0.5 | 5 | 5 | 7V5B |
| 1SMB3EZ8.2 | 8.2 | 7.79 | 8.61 | 2 | 91 | 700 | 0.5 | 5 | 6 | 8V2B |
| 1SMB3EZ8.7 | 8.7 | 8.27 | 9.14 | 2 | 85 | 700 | 0.5 | 4 | 6.6 | 8V7B |
| 1SMB3EZ9.1 | 9.1 | 8.65 | 9.56 | 3 | 82 | 700 | 0.5 | 3 | 7 | 9V1B |
| 1SMB3EZ10 | 10 | 9.5 | 10.5 | 4 | 75 | 700 | 0.25 | 3 | 7.6 | 10B |
| 1SMB3EZ11 | 11 | 10.45 | 11.55 | 4 | 68 | 700 | 0.25 | 1 | 8.4 | 11B |
| 1SMB3EZ12 | 12 | 11.4 | 12.6 | 5 | 63 | 700 | 0.25 | 1 | 9.1 | 12B |
| 1SMB3EZ13 | 13 | 12.35 | 13.65 | 5 | 58 | 700 | 0.25 | 0.5 | 9.9 | 13B |
| 1SMB3EZ14 | 14 | 13.3 | 14.7 | 5 | 53 | 700 | 0.25 | 0.5 | 10.6 | 14B |
| 1SMB3EZ15 | 15 | 14.25 | 15.75 | 6 | 50 | 700 | 0.25 | 0.5 | 11.4 | 15B |
| 1SMB3EZ16 | 16 | 15.2 | 16.8 | 6 | 47 | 700 | 0.25 | 0.5 | 12.2 | 16B |
| 1SMB3EZ17 | 17 | 16.15 | 17.85 | 6 | 44 | 750 | 0.25 | 0.5 | 13 | 17B |
| 1SMB3EZ18 | 18 | 17.1 | 18.9 | 6 | 42 | 750 | 0.25 | 0.5 | 13.7 | 18B |
| 1SMB3EZ19 | 19 | 18.05 | 19.95 | 7 | 40 | 750 | 0.25 | 0.5 | 14.4 | 19B |
| 1SMB3EZ20 | 20 | 19 | 21 | 7 | 37 | 750 | 0.25 | 0.5 | 15.2 | 20B |
| 1SMB3EZ22 | 22 | 20.9 | 23.1 | 8 | 34 | 750 | 0.25 | 0.5 | 16.7 | 22B |
| 1SMB3EZ24 | 24 | 22.8 | 25.2 | 9 | 31 | 750 | 0.25 | 0.5 | 18.2 | 24B |
| 1SMB3EZ25 | 25 | 23.75 | 26.25 | 10 | 30 | 750 | 0.25 | 0.5 | 19 | 25B |
| 1SMB3EZ27 | 27 | 25.65 | 28.35 | 10 | 28 | 750 | 0.25 | 0.5 | 20.6 | 27B |
| 1SMB3EZ28 | 28 | 26.6 | 29.4 | 12 | 27 | 750 | 0.25 | 0.5 | 21.3 | 28B |
| 1SMB3EZ30 | 30 | 28.5 | 31.5 | 16 | 25 | 1000 | 0.25 | 0.5 | 22.5 | 30B |
| 1SMB3EZ33 | 33 | 31.35 | 34.65 | 20 | 23 | 1000 | 0.25 | 0.5 | 25.1 | 33B |
| 1SMB3EZ36 | 36 | 34.2 | 37.8 | 22 | 21 | 1000 | 0.25 | 0.5 | 27.4 | 36B |
| 1SMB3EZ39 | 39 | 37.05 | 40.95 | 28 | 19 | 1000 | 0.25 | 0.5 | 29.7 | 39B |
| 1SMB3EZ43 | 43 | 40.85 | 45.15 | 33 | 17 | 1500 | 0.25 | 0.5 | 32.7 | 43B |
| 1SMB3EZ47 | 47 | 44.65 | 49.35 | 38 | 16 | 1500 | 0.25 | 0.5 | 35.8 | 47B |
| 1SMB3EZ51 | 51 | 48.45 | 53.55 | 45 | 15 | 1500 | 0.25 | 0.5 | 38.8 | 51B |