



**THE DATASHEET OF
MTZJT-7716B**



Zener diode

MTZ J Series

●Applications

Constant voltage control

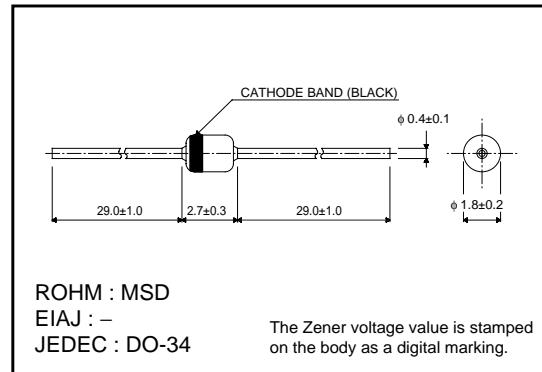
●Features

- 1) Glass sealed envelope. (MSD)
- 2) High reliability.

●Construction

Silicon epitaxial planer

●External dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

| Parameter | Symbol | Limits | Unit |
|----------------------|--------|-------------|------|
| Power dissipation | P | 500 | mW |
| Junction temperature | Tj | 175 | °C |
| Storage temperature | Tstg | -65 to +175 | °C |

Diodes

●Electrical characteristics (Ta=25°C)

| Type | Zener voltage | | | Operating resistance | | Rising operating resistance | | Reverse current | |
|------------|--------------------|--------|---------------------|----------------------|---------------------|-----------------------------|---------------------|---------------------|--------------------|
| | V _Z (V) | | | Z _Z (Ω) | | Z _{ZK} (Ω) | | I _R (μA) | |
| | Min. | Max. | I _Z (mA) | Max. | I _Z (mA) | Max. | I _Z (mA) | Max. | V _R (V) |
| MTZ J 3.6B | 3.600 | 3.845 | 5 | 100 | 5 | 1000 | 1 | 10 | 1.0 |
| MTZ J 3.9B | 3.890 | 4.160 | 5 | 100 | 5 | 1000 | 1 | 5 | 1.0 |
| MTZ J 4.3B | 4.170 | 4.430 | 5 | 100 | 5 | 1000 | 1 | 5 | 1.0 |
| MTZ J 4.7B | 4.550 | 4.800 | 5 | 80 | 5 | 900 | 0.5 | 5 | 1.0 |
| MTZ J 5.1B | 4.940 | 5.200 | 5 | 70 | 5 | 1200 | 1 | 5 | 1.5 |
| MTZ J 5.6B | 5.450 | 5.730 | 5 | 40 | 5 | 900 | 1 | 5 | 2.5 |
| MTZ J 6.2B | 5.960 | 6.270 | 5 | 30 | 5 | 500 | 1 | 5 | 3.0 |
| MTZ J 6.8B | 6.490 | 6.830 | 5 | 20 | 5 | 150 | 0.5 | 2 | 3.5 |
| MTZ J 7.5B | 7.070 | 7.450 | 5 | 20 | 5 | 120 | 0.5 | 0.5 | 4.0 |
| MTZ J 8.2B | 7.780 | 8.190 | 5 | 20 | 5 | 120 | 0.5 | 0.5 | 5.0 |
| MTZ J 9.1B | 8.570 | 9.010 | 5 | 20 | 5 | 120 | 0.5 | 0.5 | 6.0 |
| MTZ J 10B | 9.410 | 9.900 | 5 | 20 | 5 | 120 | 0.5 | 0.2 | 7.0 |
| MTZ J 11B | 10.500 | 11.050 | 5 | 20 | 5 | 120 | 0.5 | 0.2 | 8.0 |
| MTZ J 12B | 11.440 | 12.030 | 5 | 25 | 5 | 110 | 0.5 | 0.2 | 9.0 |
| MTZ J 13B | 12.550 | 13.210 | 5 | 25 | 5 | 110 | 0.5 | 0.2 | 10 |
| MTZ J 15B | 13.890 | 14.620 | 5 | 25 | 5 | 110 | 0.5 | 0.2 | 11 |
| MTZ J 16B | 15.250 | 16.040 | 5 | 25 | 5 | 150 | 0.5 | 0.2 | 12 |
| MTZ J 18B | 16.820 | 17.700 | 5 | 30 | 5 | 150 | 0.5 | 0.2 | 13 |
| MTZ J 20B | 18.630 | 19.590 | 5 | 30 | 5 | 200 | 0.5 | 0.2 | 15 |
| MTZ J 22B | 20.640 | 21.710 | 5 | 30 | 5 | 200 | 0.5 | 0.2 | 17 |
| MTZ J 24B | 22.610 | 23.770 | 5 | 35 | 5 | 200 | 0.5 | 0.2 | 19 |
| MTZ J 27B | 24.970 | 26.260 | 5 | 45 | 5 | 250 | 0.5 | 0.2 | 21 |
| MTZ J 30B | 27.700 | 29.130 | 5 | 55 | 5 | 250 | 0.5 | 0.2 | 23 |
| MTZ J 33B | 30.320 | 31.880 | 5 | 65 | 5 | 250 | 0.5 | 0.2 | 25 |
| MTZ J 36B | 32.790 | 34.490 | 5 | 75 | 5 | 250 | 0.5 | 0.2 | 27 |
| MTZ J 39B | 35.360 | 37.190 | 5 | 85 | 5 | 250 | 0.5 | 0.2 | 30 |

Notes) 1. The Zener voltage is measured 40ms after power is supplied.

Diodes

●Electrical characteristics curves (Ta=25°C)

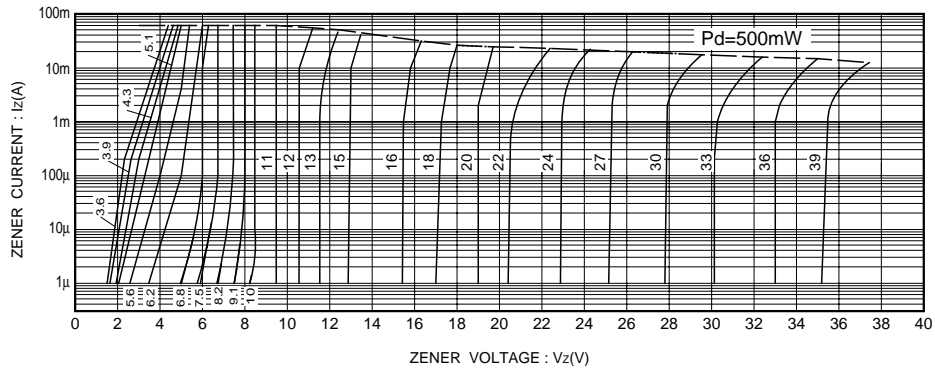


Fig.1 Zener characteristics

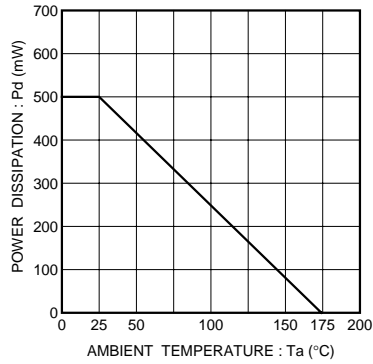


Fig.2 Derating curve

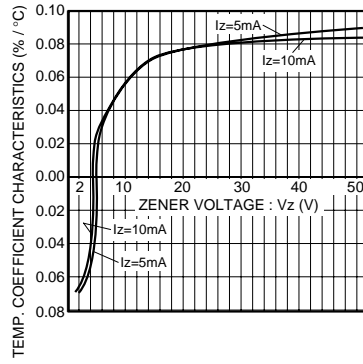
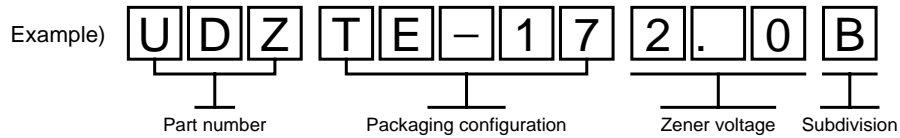


Fig.3 Zener voltage-temp.coefficient characteristics

●Makeup of the part number

- Please follow the part number designation when the order is placed.
- Fill in from the left, leaving any extra boxes empty on the right.
- Please refer packing specification about packing form.

●Zener diodes



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