

ZENER DIODES

POWER DISSIPATION: 500 mW

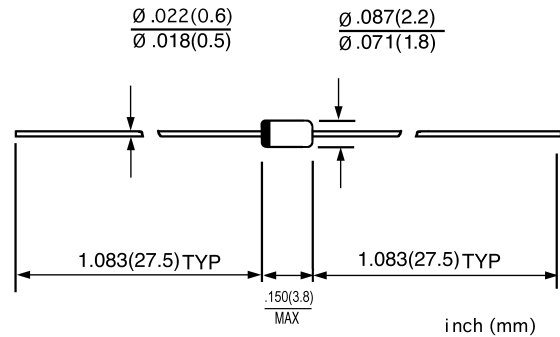
FEATURES

- ◇ Glass sealed envelope
- ◇ High reliability
- ◇ Silicon epitaxial planer
- ◇ Constnt voltage contral

MECHANICAL DATA

- ◇ Case:DO-35, glass case
- ◇ Approx. weight: 0.13 grams.

DO-35(GLASS)



MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

| | SYMBOL | VALUE | UNIT |
|---|-----------|------------|--------------------|
| Zener current (see table "characteristics") | | | |
| Power dissipation | P_{tot} | 500 | mW |
| Maximum junction temperature | T_J | 175 | $^{\circ}\text{C}$ |
| Storage temperature range | T_s | -55---+175 | $^{\circ}\text{C}$ |

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ELECTRICAL CHARACTERISTICS (T_A=25°C)

| Type | Nominal zener voltage | | | | Test current | Maximum dynamic impedance | | | Maximum reverse leakage current | |
|---------|-----------------------|-------------|-------------|-------------|--------------|---------------------------|----------------------------------|----------------------------------|---------------------------------|----------------|
| | V _Z (V) | | | | | I _{ZT} | Z _{ZT} @I _{ZT} | Z _{ZK} @I _{ZK} | I _{ZK} | I _R |
| | A | B | C | D | mA | Ω | Ω | mA | μA | V |
| MTZJ2.0 | 1.880~2.100 | 2.020~2.200 | - | - | 5 | 100 | 1000 | 0.5 | 120 | 0.5 |
| MTZJ2.2 | 2.120~2.300 | 2.220~2.410 | - | - | 5 | 100 | 1000 | 0.5 | 120 | 0.7 |
| MTZJ2.4 | 2.330~2.520 | 2.430~2.630 | - | - | 5 | 100 | 1000 | 0.5 | 120 | 1 |
| MTZJ2.7 | 2.540~2.750 | 2.940~2.910 | - | - | 5 | 110 | 1000 | 0.5 | 100 | 1 |
| MTZJ3.0 | 2.850~3.070 | 3.010~3.220 | - | - | 5 | 120 | 1000 | 0.5 | 50 | 1 |
| MTZJ3.3 | 3.160~3.380 | 3.320~3.530 | - | - | 5 | 120 | 1000 | 0.5 | 20 | 1 |
| MTZJ3.6 | 3.455~3.695 | 3.600~3.845 | - | - | 5 | 100 | 1000 | 1 | 10 | 1 |
| MTZJ3.9 | 3.74~4.01 | 3.89~4.16 | - | - | 5 | 100 | 1000 | 1 | 5 | 1 |
| MTZJ4.3 | 4.04~4.29 | 4.17~4.43 | 4.30~4.57 | - | 5 | 100 | 1000 | 1 | 5 | 1 |
| MTZJ4.7 | 4.44~4.68 | 4.55~4.80 | 4.68~4.93 | - | 5 | 80 | 900 | 1 | 5 | 1 |
| MTZJ5.1 | 4.81~5.07 | 4.94~5.20 | 5.09~5.37 | - | 5 | 80 | 800 | 1 | 5 | 1.5 |
| MTZJ5.6 | 5.28~5.55 | 5.45~5.73 | 5.61~5.91 | - | 5 | 60 | 500 | 1 | 5 | 2.5 |
| MTZJ6.2 | 5.78~6.09 | 5.96~6.27 | 6.12~6.44 | - | 5 | 60 | 300 | 1 | 5 | 3 |
| MTZJ6.8 | 6.29~6.63 | 6.49~6.83 | 6.66~7.01 | - | 5 | 20 | 150 | 0.5 | 2 | 3.5 |
| MTZJ7.5 | 6.85~7.22 | 7.07~7.45 | 7.29~7.67 | - | 5 | 20 | 120 | 0.5 | 0.5 | 4 |
| MTZJ8.2 | 7.53~7.92 | 7.78~8.19 | 8.03~8.45 | - | 5 | 20 | 120 | 0.5 | 0.5 | 5 |
| MTZJ9.1 | 8.29~8.73 | 8.57~9.01 | 8.83~9.30 | - | 5 | 25 | 120 | 0.5 | 0.5 | 6 |
| MTZJ10 | 9.12~9.59 | 9.41~9.90 | 9.70~10.20 | 9.94~10.44 | 5 | 30 | 120 | 0.5 | 0.2 | 7 |
| MTZJ11 | 10.18~10.71 | 10.50~11.05 | 10.82~11.38 | - | 5 | 30 | 120 | 0.5 | 0.2 | 8 |
| MTZJ12 | 11.13~11.71 | 11.44~12.03 | 11.74~12.35 | - | 5 | 30 | 110 | 0.5 | 0.2 | 9 |
| MTZJ13 | 12.11~12.75 | 12.55~13.21 | 12.99~13.66 | - | 5 | 35 | 110 | 0.5 | 0.2 | 10 |
| MTZJ15 | 13.44~14.13 | 13.89~14.62 | 14.35~15.09 | - | 5 | 40 | 110 | 0.5 | 0.2 | 11 |
| MTZJ16 | 14.80~15.57 | 15.25~16.04 | 15.69~16.51 | - | 5 | 40 | 150 | 0.5 | 0.2 | 12 |
| MTZJ18 | 16.22~17.06 | 16.82~17.70 | 17.42~18.33 | - | 5 | 45 | 150 | 0.5 | 0.2 | 13 |
| MTZJ20 | 18.02~18.96 | 18.63~19.59 | 19.23~20.00 | 19.72~20.72 | 5 | 55 | 200 | 0.5 | 0.2 | 15 |
| MTZJ22 | 20.15~21.20 | 20.64~21.71 | 21.08~22.17 | 21.52~22.63 | 5 | 30 | 200 | 0.5 | 0.2 | 17 |
| MTZJ24 | 22.05~23.18 | 22.61~23.77 | 23.12~24.31 | 23.63~24.85 | 5 | 35 | 200 | 0.5 | 0.2 | 19 |
| MTZJ27 | 24.26~25.52 | 24.97~26.26 | 25.63~26.95 | 25.29~27.64 | 5 | 45 | 200 | 0.5 | 0.2 | 21 |
| MTZJ30 | 26.99~28.39 | 27.70~29.13 | 28.36~29.82 | 29.02~30.51 | 5 | 55 | 200 | 0.5 | 0.2 | 23 |
| MTZJ33 | 29.68~31.22 | 30.32~31.88 | 30.90~32.50 | 31.49~33.11 | 5 | 65 | 200 | 0.5 | 0.2 | 25 |
| MTZJ36 | 32.14~33.79 | 32.79~34.49 | 33.40~35.13 | 34.01~35.77 | 5 | 75 | 200 | 0.5 | 0.2 | 27 |
| MTZJ39 | 34.68~36.47 | 35.36~37.19 | 36.00~37.85 | 36.63~38.52 | 5 | 85 | 200 | 0.5 | 0.2 | 30 |
| MTZJ39E | 37.36~39.29 | | | | 5 | 85 | 200 | 0.5 | 0.2 | 30 |
| MTZJ39F | 38.14~40.11 | | | | 5 | 85 | 200 | 0.5 | 0.2 | 30 |
| MTZJ39G | 38.94~40.80 | | | | 5 | 85 | 200 | 0.5 | 0.2 | 30 |
| MTZJ43 | 40.00~45.00 | | | | 5 | 95 | - | - | 0.2 | 33 |
| MTZJ47 | 44.00~49.00 | | | | 5 | 95 | - | - | 0.2 | 36 |
| MTZJ51 | 48.00~54.00 | | | | 5 | 110 | - | - | 0.2 | 39 |
| MTZJ56 | 53.00~60.00 | | | | 5 | 110 | - | - | 0.2 | 43 |

FIG.1 – BREAKDOWN CHARACTERISTICS

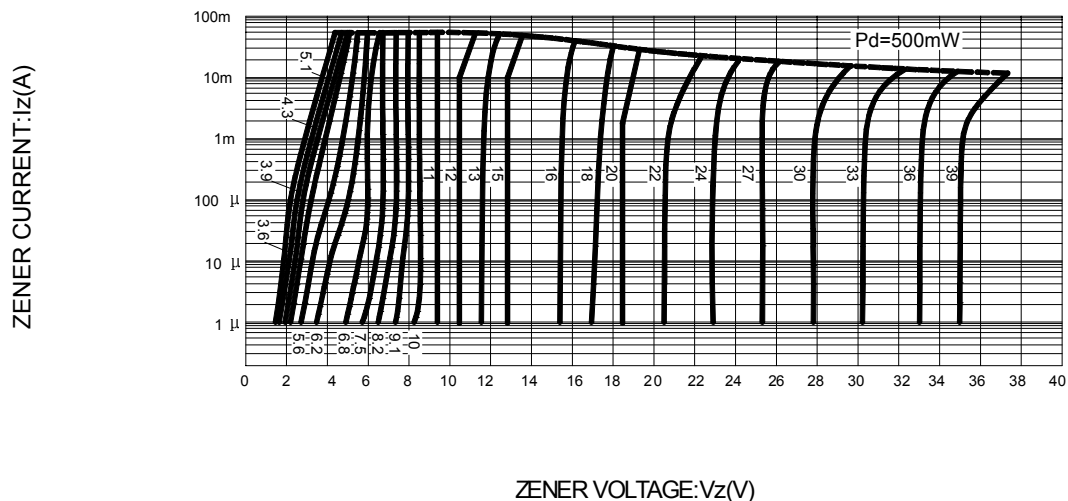


FIG.2 – TEMPERATURE COEFFICIENT

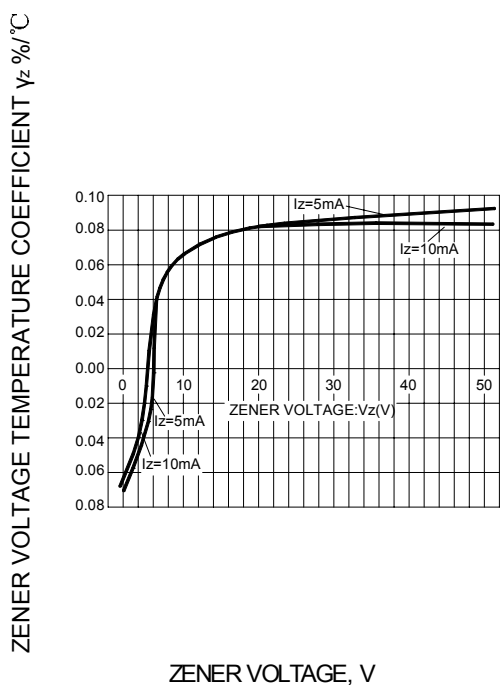


FIG.3 – ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

