

### ZENER DIODES

POWER DISSIPATION: 500 mW

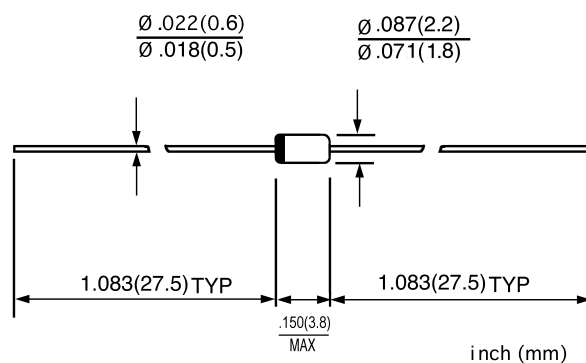
#### FEATURES

- ◇ Glass sealed envelope
- ◇ High reliability
- ◇ Silicon epitaxial planer
- ◇ Constan 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                           | $P_{\text{tot}}$ | 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<sub>A</sub>=25℃)

| Type    | Nominal zener voltage |             |             |             | Test current    | Maximum dynamic impedance        |                                  |                 | Maximum reverse leakage current |                |
|---------|-----------------------|-------------|-------------|-------------|-----------------|----------------------------------|----------------------------------|-----------------|---------------------------------|----------------|
|         | V <sub>Z</sub> (V)    |             |             |             | I <sub>ZT</sub> | Z <sub>zT</sub> @I <sub>ZT</sub> | Z <sub>zK</sub> @I <sub>ZK</sub> | I <sub>ZK</sub> | I <sub>R</sub>                  | V <sub>R</sub> |
|         | 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             |

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FIG.1 -- BREAKDOWN CHARACTERISTICS

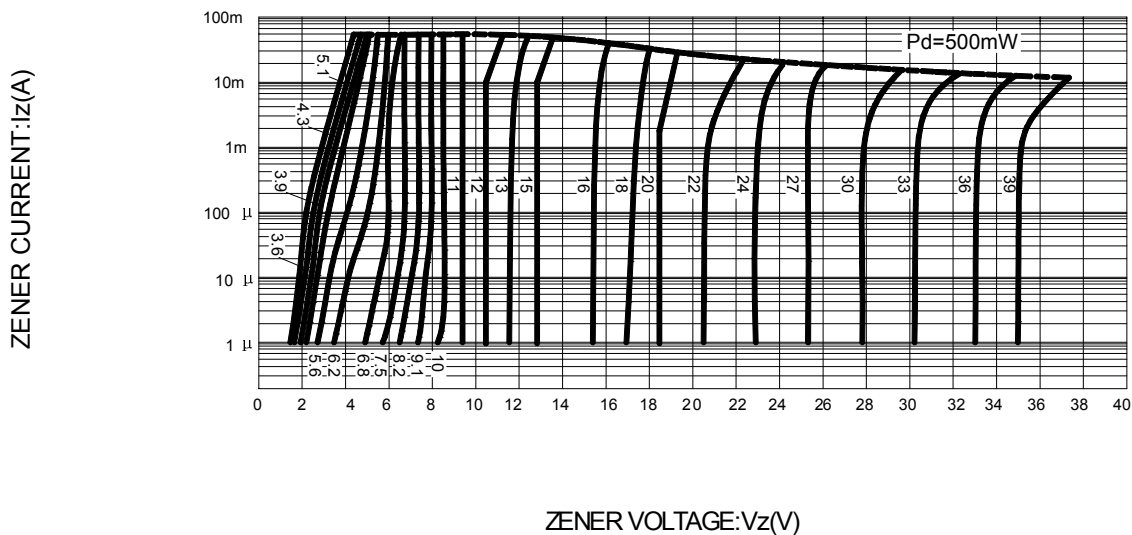


FIG.2 -- TEMPERATURE COEFFICIENT

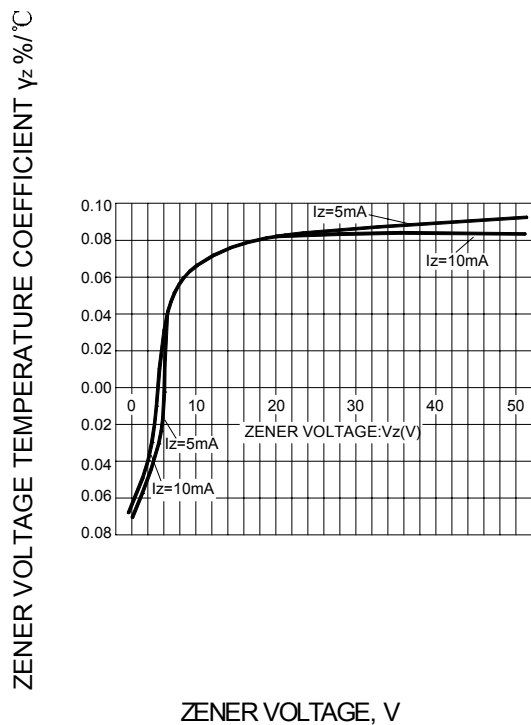


FIG.3 -- ADMISSIBLE POWER DISSIPATION  
VERSUS AMBIENT TEMPERATURE

