

查询"MZ706"供应商

**Microsemi Corp.**

The diode experts

SANTA ANA, CA

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**1N5063 - 1N5117  
MZ806 - MZ890,  
MZ 210 - MZ 240**

## FEATURES

- Microminiature package.
- Voidless hermetically sealed glass package.
- Triple layer passivation.
- Metallurgically bonded.
- High performance characteristics.
- Stable operation at temperatures to 200°C.
- Very low thermal impedance.

## MAXIMUM RATINGS

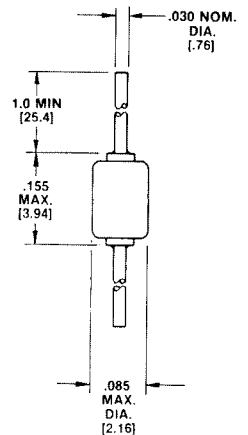
Operating Temperature: -65°C to +175°C.  
Storage Temperature: -65°C to +200°C.

## ELECTRICAL CHARACTERISTICS

| TYPE<br>(Note 1)      |                         | ELECTRICAL SPECIFICATIONS AT 25°C             |                             |                                    |               |                |                                           |                                                     |                                              |                                      |       | MAXIMUM RATINGS |         |
|-----------------------|-------------------------|-----------------------------------------------|-----------------------------|------------------------------------|---------------|----------------|-------------------------------------------|-----------------------------------------------------|----------------------------------------------|--------------------------------------|-------|-----------------|---------|
|                       |                         | NOMINAL<br>ZENER<br>VOLTAGE<br>$V_Z @ I_{ZT}$ | TEST<br>CURRENT<br>$I_{ZT}$ | MAXIMUM REVERSE<br>LEAKAGE CURRENT |               |                | MAX. ZENER<br>IMPEDANCE<br>$Z_Z @ I_{ZT}$ | TYP.<br>TEMP.<br>COEFFICIENT<br>$\alpha_Z @ I_{ZT}$ | MAXIMUM<br>CONTINUOUS<br>CURRENT<br>$I_{ZM}$ | MAXIMUM<br>SURGE<br>CURRENT<br>$I_S$ |       |                 |         |
|                       |                         |                                               |                             | $I_R @ V_R$                        | $\pm 5\% V_R$ | $\pm 10\% V_R$ |                                           |                                                     |                                              |                                      |       |                 |         |
|                       |                         |                                               |                             |                                    |               |                |                                           |                                                     |                                              |                                      | Volts | mA              | $\mu A$ |
| Jedec<br>Registration | $\pm 10\%$<br>Tolerance | Volts                                         | mA                          | $\mu A$                            | Volts         | Volts          | Ohms                                      | %/°C                                                | mA                                           | Amps                                 |       |                 |         |
| 1N5063                | MZ806                   | 6.8                                           | 75                          | 500                                | 5.2           | 4.9            | 2                                         | .04                                                 | 440                                          | 10.0                                 |       |                 |         |
| 1N5064                | MZ807                   | 7.5                                           | 75                          | 300                                | 5.7           | 5.4            | 2                                         | .04                                                 | 400                                          | 8.0                                  |       |                 |         |
| 1N5065                | MZ808                   | 8.2                                           | 75                          | 200                                | 6.2           | 5.9            | 3                                         | .05                                                 | 360                                          | 7.0                                  |       |                 |         |
| 1N5066                | MZ809                   | 9.1                                           | 75                          | 100                                | 6.9           | 6.6            | 3                                         | .05                                                 | 330                                          | 6.0                                  |       |                 |         |
| 1N5067                | MZ810                   | 10.0                                          | 75                          | 40                                 | 7.6           | 7.2            | 4                                         | .06                                                 | 300                                          | 5.0                                  |       |                 |         |
| 1N4883                | MZ812                   | 12                                            | 65                          | 10                                 | 9.1           | 8.6            | 5                                         | .07                                                 | 250                                          | 4.0                                  |       |                 |         |
| 1N5069                | MZ813                   | 13                                            | 50                          | 10                                 | 9.9           | 9.3            | 6                                         | .07                                                 | 230                                          | 4.0                                  |       |                 |         |
| 1N5070                | MZ814                   | 14                                            | 50                          | 10                                 | 10.6          | 10.1           | 6                                         | .07                                                 | 210                                          | 4.0                                  |       |                 |         |
| 1N5071                | MZ815                   | 15                                            | 50                          | 10                                 | 11.4          | 10.8           | 6                                         | .07                                                 | 200                                          | 3.0                                  |       |                 |         |
| 1N5072                | MZ816                   | 16                                            | 50                          | 5                                  | 12.2          | 11.5           | 7                                         | .07                                                 | 185                                          | 3.0                                  |       |                 |         |
| 1N5073                | MZ818                   | 18                                            | 40                          | 5                                  | 13.7          | 12.9           | 8                                         | .08                                                 | 170                                          | 2.0                                  |       |                 |         |
| 1N4884                | MZ820                   | 20                                            | 40                          | 5                                  | 15.2          | 14.4           | 9                                         | .08                                                 | 150                                          | 2.0                                  |       |                 |         |
| 1N5074                | MZ822                   | 22                                            | 30                          | 5                                  | 16.7          | 15.8           | 10                                        | .08                                                 | 135                                          | 2.0                                  |       |                 |         |
| 1N5075                | MZ824                   | 24                                            | 30                          | 5                                  | 18.2          | 17.3           | 10                                        | .08                                                 | 125                                          | 1.5                                  |       |                 |         |
| 1N5076                | MZ827                   | 27                                            | 25                          | 1                                  | 20.6          | 19.4           | 12                                        | .09                                                 | 110                                          | 1.5                                  |       |                 |         |
| 1N5077                | MZ830                   | 30                                            | 25                          | 1                                  | 22.8          | 21.6           | 15                                        | .090                                                | 100                                          | 1.5                                  |       |                 |         |
| 1N5078                | MZ833                   | 33                                            | 20                          | 1                                  | 25.1          | 23.7           | 21                                        | .090                                                | 90                                           | 1.2                                  |       |                 |         |
| 1N5079                | MZ836                   | 36                                            | 20                          | 1                                  | 27.4          | 25.9           | 21                                        | .090                                                | 85                                           | 1.0                                  |       |                 |         |
| 1N5081                | MZ840                   | 40                                            | 20                          | 1                                  | 30.4          | 28.8           | 27                                        | .095                                                | 75                                           | 1.0                                  |       |                 |         |
| 1N5083                | MZ845                   | 45                                            | 15                          | 1                                  | 34.2          | 32.4           | 37                                        | .095                                                | 65                                           | 0.8                                  |       |                 |         |
| 1N5085                | MZ850                   | 50                                            | 15                          | 1                                  | 38.0          | 36.0           | 50                                        | .095                                                | 60                                           | 0.8                                  |       |                 |         |
| 1N5087                | MZ856                   | 56                                            | 10                          | 1                                  | 42.6          | 40.3           | 70                                        | .095                                                | 55                                           | 0.7                                  |       |                 |         |
| 1N5088                | MZ860                   | 60                                            | 10                          | 1                                  | 45.7          | 43.2           | 70                                        | .095                                                | 50                                           | 0.6                                  |       |                 |         |
| 1N5091                | MZ870                   | 70                                            | 10                          | 1                                  | 53.3          | 50.5           | 90                                        | .095                                                | 45                                           | 0.6                                  |       |                 |         |
| 1N5092                | MZ875                   | 75                                            | 10                          | 1                                  | 56.0          | 54.0           | 100                                       | .095                                                | 40                                           | 0.5                                  |       |                 |         |
| 1N5093                | MZ880                   | 80                                            | 10                          | 1                                  | 60.8          | 57.7           | 115                                       | .095                                                | 35                                           | 0.4                                  |       |                 |         |
| 1N4096                | MZ890                   | 90                                            | 8.0                         | 1                                  | 68.5          | 64.8           | 150                                       | .095                                                | 30                                           | 0.4                                  |       |                 |         |
| 1N4097                | MZ210                   | 100                                           | 5.0                         | 1                                  | 76.0          | 72.0           | 175                                       | .100                                                | 30                                           | 0.4                                  |       |                 |         |
| 1N5096                | MZ211                   | 110                                           | 5.0                         | 1                                  | 83.6          | 79.2           | 250                                       | .100                                                | 25                                           | 0.3                                  |       |                 |         |
| 1N5097                | MZ212                   | 120                                           | 5.0                         | 1                                  | 91.2          | 86.4           | 325                                       | .100                                                | 25                                           | 0.2                                  |       |                 |         |
| 1N5098                | MZ213                   | 130                                           | 5.0                         | 1                                  | 98.8          | 93.6           | 375                                       | .100                                                | 20                                           | 0.20                                 |       |                 |         |
| 1N5099                | MZ214                   | 140                                           | 5.0                         | 1                                  | 106           | 101            | 550                                       | .100                                                | 20                                           | 0.20                                 |       |                 |         |
| 1N4098                | MZ215                   | 150                                           | 5.0                         | 1                                  | 114           | 108            | 650                                       | .100                                                | 20                                           | 0.20                                 |       |                 |         |
| 1N5100                | MZ216                   | 160                                           | 4.0                         | 1                                  | 122           | 115            | 700                                       | .100                                                | 20                                           | 0.15                                 |       |                 |         |
| 1N5101                | MZ217                   | 170                                           | 4.0                         | 1                                  | 129           | 122            | 750                                       | .100                                                | 18                                           | 0.15                                 |       |                 |         |
| 1N5102                | MZ218                   | 180                                           | 4.0                         | 1                                  | 137           | 129            | 850                                       | .100                                                | 18                                           | 0.10                                 |       |                 |         |
| 1N5103                | MZ219                   | 190                                           | 4.0                         | 1                                  | 144           | 137            | 900                                       | .100                                                | 15                                           | 0.10                                 |       |                 |         |
| 1N5104                | MZ220                   | 200                                           | 4.0                         | 1                                  | 152           | 144            | 950                                       | .100                                                | 15                                           | 0.10                                 |       |                 |         |
| 1N5105                | MZ222                   | 220                                           | 3.0                         | 1                                  | 167           | 158            | 1100                                      | .100                                                | 15                                           | 0.09                                 |       |                 |         |
| 1N5106                | MZ224                   | 240                                           | 3.0                         | 1                                  | 182           | 173            | 1300                                      | .105                                                | 12                                           | 0.09                                 |       |                 |         |
| 1N5107                | MZ226                   | 260                                           | 3.0                         | 1                                  | 198           | 187            | 1500                                      | .105                                                | 12                                           | 0.08                                 |       |                 |         |
| 1N5109                | MZ228                   | 280                                           | 3.0                         | 1                                  | 213           | 202            | 1700                                      | .105                                                | 10                                           | 0.08                                 |       |                 |         |
| 1N5110                | MZ230                   | 300                                           | 3.0                         | 1                                  | 228           | 216            | 1900                                      | .105                                                | 10                                           | 0.07                                 |       |                 |         |
| 1N5111                | MZ232                   | 320                                           | 2.0                         | 1                                  | 243           | 230            | 2100                                      | .105                                                | 9                                            | 0.07                                 |       |                 |         |
| 1N5113                | MZ234                   | 340                                           | 2.0                         | 1                                  | 258           | 245            | 2400                                      | .110                                                | 9                                            | 0.06                                 |       |                 |         |
| 1N5114                | MZ236                   | 360                                           | 2.0                         | 1                                  | 274           | 259            | 2700                                      | .110                                                | 8                                            | 0.06                                 |       |                 |         |
| 1N5115                | MZ238                   | 380                                           | 2.0                         | 1                                  | 289           | 274            | 3000                                      | .110                                                | 8                                            | 0.06                                 |       |                 |         |
| 1N5117                | MZ240                   | 400                                           | 2.0                         | 1                                  | 304           | 288            | 3500                                      | .110                                                | 7                                            | 0.06                                 |       |                 |         |

**NOTE 1:** JEDEC registration applies to  $\pm 5\%$  tolerance zeners only.  
Specify 5% voltage tolerance by changing first numeral of type number from 8 to 7.  
(MZ806 becomes 706) or from 2 to 1 (MZ211 becomes MZ111).

## 3-WATT GLASS ZENER DIODES



**FIGURE 1  
PACKAGE A**

## MECHANICAL CHARACTERISTICS

CASE: Hermetically sealed glass case.

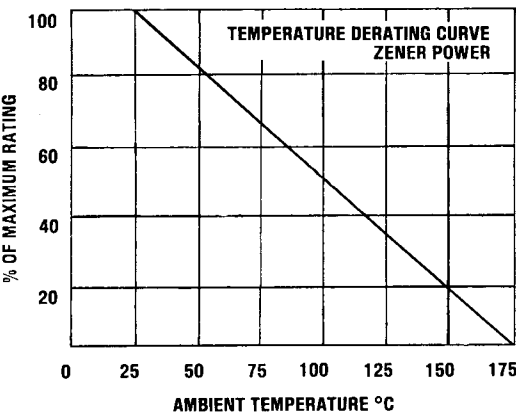
LEAD MATERIAL: Tinned copper.

MARKING: Body painted, alpha numeric with JEDEC number.

POLARITY: Cathode band.

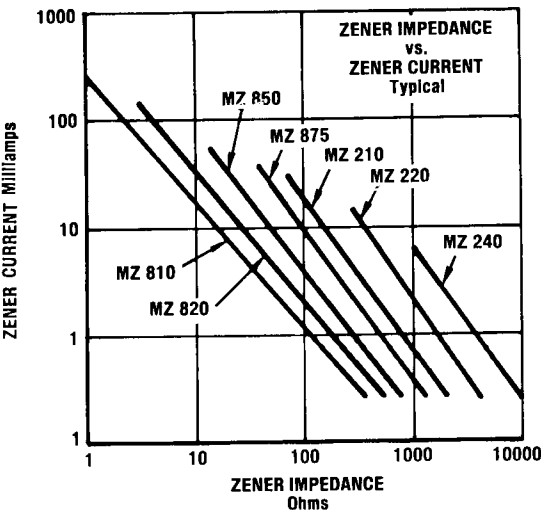
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**FIGURE 2**

**EXPLANATION OF ZENER CHARACTERISTICS**



**FIGURE 3**