

# MAZ8000 Series

## Silicon planar type

For stabilization of power supply

### ■ Features

- Extremely low noise voltage caused from the diode (2.4V to 39V, 1/3 to 1/10 of our conventional MAZ3000 series)
- Extremely good rising performance (in the low-current range)
- Easy-to-select the optimum diode because of their finely divided zener-voltage ranks
- Guaranteed reliability, equivalent to that of conventional products (Mini type package)
- Allowing to reduce the mounting area, thickness and weight substantially, compared with those of the conventional products
- Allowing both reflow and flow mode of automatic soldering
- Allowing automatic mounting by an existing chip mounter

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter                       | Symbol           | Rating      | Unit             |
|---------------------------------|------------------|-------------|------------------|
| Repetitive peak forward current | $I_{\text{FRM}}$ | 200         | mA               |
| Total power dissipation*        | $P_{\text{tot}}$ | 150         | mW               |
| Junction temperature            | $T_j$            | 150         | $^\circ\text{C}$ |
| Storage temperature             | $T_{\text{stg}}$ | -55 to +150 | $^\circ\text{C}$ |

Note) \* : With a printed-circuit board

### ■ Common Electrical Characteristics $T_a = 25^\circ\text{C}^{*1}$

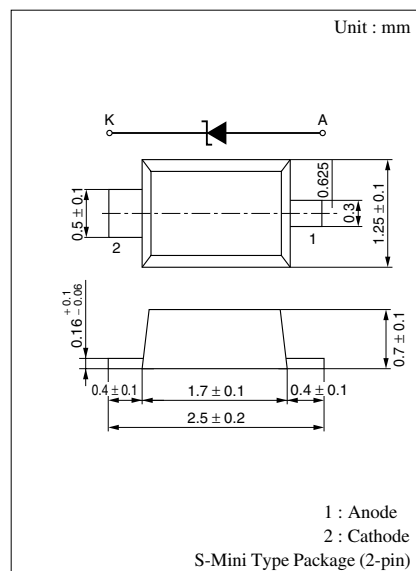
| Parameter                                              | Symbol   | Conditions                  | Min                                                                     | Typ | Max | Unit                 |
|--------------------------------------------------------|----------|-----------------------------|-------------------------------------------------------------------------|-----|-----|----------------------|
| Forward voltage                                        | $V_F$    | $I_F = 10 \text{ mA}$       |                                                                         | 0.9 | 1.0 | V                    |
| Zener voltage <sup>*2</sup>                            | $V_Z$    | $I_Z$ ..... Specified value |                                                                         |     |     | V                    |
| Operating resistance                                   | $R_{ZK}$ | $I_Z$ ..... Specified value | Refer to the list of the electrical characteristics within part numbers |     |     | $\Omega$             |
|                                                        | $R_Z$    | $I_Z$ ..... Specified value |                                                                         |     |     | $\Omega$             |
| Reverse current                                        | $I_R$    | $V_R$ ..... Specified value |                                                                         |     |     | $\mu\text{A}$        |
| Temperature coefficient of zener voltage <sup>*3</sup> | $S_Z$    | $I_Z$ ..... Specified value |                                                                         |     |     | mV/ $^\circ\text{C}$ |

Note) 1. Rated input/output frequency: 5 MHz

2. \*1 : The  $V_Z$  value is for the temperature of  $25^\circ\text{C}$ . In other cases, carry out the temperature compensation.

\*2 : Guaranteed at 20 ms after power application.

\*3 :  $T_j = 25^\circ\text{C}$  to  $150^\circ\text{C}$



### Marking Symbol

Refer to the list of the electrical characteristics within part numbers  
(Example) MAZ8082-H : 8 $\wedge$ 2

Note) L/M/H marked products will be supplied unless other wise specified

■ Electrical characteristics within part numbers  $T_a = 25^\circ\text{C}$

| Part Number | Zener voltage      |      |      |                     | Reverse current |                    | Operating resistance |                     |                 |                     | Temperature coefficient of zener voltage |                     | Marking Symbol | Conventional products |
|-------------|--------------------|------|------|---------------------|-----------------|--------------------|----------------------|---------------------|-----------------|---------------------|------------------------------------------|---------------------|----------------|-----------------------|
|             | V <sub>Z</sub> (V) |      |      |                     | I <sub>R</sub>  |                    | R <sub>Z</sub>       |                     | R <sub>ZK</sub> |                     | S <sub>Z</sub> (mV/°C)                   |                     |                |                       |
|             | Min                | Nom  | Max  | I <sub>Z</sub> (mA) | (μA) Max        | V <sub>R</sub> (V) | (Ω) Max              | I <sub>Z</sub> (mA) | (Ω) Max         | I <sub>Z</sub> (mA) | Typ                                      | I <sub>Z</sub> (mA) |                |                       |
| MAZ8024     | 2.28               | 2.40 | 2.60 | 5                   | 120             | 1.0                | 100                  | 5                   | —               | —                   | −1.6                                     | 5                   | 2.4            | MAZ3024               |
| MAZ8027     | 2.50               | 2.70 | 2.90 | 5                   | 120             | 1.0                | 110                  | 5                   | —               | —                   | −2.0                                     | 5                   | 2_7or2^7       | MAZ3027               |
| MAZ8027-L   | 2.50               | 2.60 | 2.75 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 2_7            | MAZ3027-L             |
| MAZ8027-H   | 2.65               | 2.80 | 2.90 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 2^7            | MAZ3027-H             |
| MAZ8030     | 2.80               | 3.00 | 3.20 | 5                   | 50              | 1.0                | 120                  | 5                   | —               | —                   | −2.1                                     | 5                   | 3_0or3^0       | MAZ3030               |
| MAZ8030-L   | 2.80               | 2.90 | 3.05 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 3_0            | MAZ3030-L             |
| MAZ8030-H   | 2.95               | 3.10 | 3.20 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 3^0            | MAZ3030-H             |
| MAZ8033     | 3.10               | 3.30 | 3.50 | 5                   | 20              | 1.0                | 130                  | 5                   | —               | —                   | −2.4                                     | 5                   | 3_3or3^3       | MAZ3033               |
| MAZ8033-L   | 3.10               | 3.20 | 3.35 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 3_3            | MAZ3033-L             |
| MAZ8033-H   | 3.25               | 3.40 | 3.50 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 3^3            | MAZ3033-H             |
| MAZ8036     | 3.40               | 3.60 | 3.80 | 5                   | 10              | 1.0                | 130                  | 5                   | —               | —                   | −2.4                                     | 5                   | 3_6or3^6       | MAZ3036               |
| MAZ8036-L   | 3.40               | 3.50 | 3.65 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 3_6            | MAZ3036-L             |
| MAZ8036-H   | 3.55               | 3.70 | 3.80 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 3^6            | MAZ3036-H             |
| MAZ8039     | 3.70               | 3.90 | 4.10 | 5                   | 10              | 1.0                | 130                  | 5                   | —               | —                   | −2.5                                     | 5                   | 3_9or3^9       | MAZ3039               |
| MAZ8039-L   | 3.70               | 3.80 | 3.97 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 3_9            | MAZ3039-L             |
| MAZ8039-H   | 3.87               | 4.00 | 4.10 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 3^9            | MAZ3039-H             |
| MAZ8043     | 4.00               | 4.30 | 4.60 | 5                   | 10              | 1.0                | 130                  | 5                   | —               | —                   | −2.5                                     | 5                   | 4_3or4-3or4^3  | MAZ3043               |
| MAZ8043-L   | 4.03               | 4.10 | 4.26 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 4_3            | MAZ3043-L             |
| MAZ8043-M   | 4.17               | 4.30 | 4.40 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 4-3            | MAZ3043-M             |
| MAZ8043-H   | 4.31               | 4.40 | 4.54 | 5                   | 2.0             | 1.0                | 80                   | 5                   | 800             | 1.0                 | −1.4                                     | 5                   | 4^3            | MAZ3043-H             |
| MAZ8047     | 4.40               | 4.70 | 5.00 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 4_7or4-7or4^7  | MAZ3047               |
| MAZ8047-L   | 4.45               | 4.60 | 4.69 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 4_7            | MAZ3047-L             |
| MAZ8047-M   | 4.59               | 4.70 | 4.83 | 5                   | 1.0             | 2.0                | 60                   | 5                   | 500             | 1.0                 | −0.8                                     | 5                   | 4-7            | MAZ3047-M             |
| MAZ8047-H   | 4.74               | 4.90 | 4.99 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 4^7            | MAZ3047-H             |
| MAZ8051     | 4.80               | 5.10 | 5.40 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 5_1or5-1or5^1  | MAZ3051               |
| MAZ8051-L   | 4.87               | 5.00 | 5.12 | 5                   | 1.0             | 2.0                | 60                   | 5                   | 500             | 1.0                 | −0.8                                     | 5                   | 5_1            | MAZ3051-L             |
| MAZ8051-M   | 5.00               | 5.10 | 5.26 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 5-1            | MAZ3051-M             |
| MAZ8051-H   | 5.14               | 5.30 | 5.40 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 5^1            | MAZ3051-H             |
| MAZ8056     | 5.30               | 5.60 | 6.00 | 5                   | 0.5             | 2.5                | 40                   | 5                   | 200             | 0.5                 | 1.2                                      | 5                   | 5_6or5-6or5^6  | MAZ3056               |
| MAZ8056-L   | 5.30               | 5.40 | 5.58 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 5_6            | MAZ3056-L             |
| MAZ8056-M   | 5.48               | 5.60 | 5.76 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 5-6            | MAZ3056-M             |
| MAZ8056-H   | 5.66               | 5.80 | 5.95 | 5                   | 0.2             | 4.0                | 30                   | 5                   | 100             | 0.5                 | 2.3                                      | 5                   | 5^6            | MAZ3056-H             |
| MAZ8062     | 5.80               | 6.20 | 6.60 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 6_2or6-2or6^2  | MAZ3062               |
| MAZ8062-L   | 5.85               | 6.00 | 6.15 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 6_2            | MAZ3062-L             |
| MAZ8062-M   | 6.05               | 6.20 | 6.36 | 5                   | 0.2             | 4.0                | 30                   | 5                   | 100             | 0.5                 | 2.3                                      | 5                   | 6-2            | MAZ3062-M             |
| MAZ8062-H   | 6.24               | 6.40 | 6.56 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 6^2            | MAZ3062-H             |
| MAZ8068     | 6.40               | 6.80 | 7.20 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 6_8or6-8or6^8  | MAZ3068               |
| MAZ8068-L   | 6.44               | 6.60 | 6.77 | 5                   | 0.1             | 4.0                | 20                   | 5                   | 60              | 0.5                 | 3.0                                      | 5                   | 6_8            | MAZ3068-L             |
| MAZ8068-M   | 6.64               | 6.80 | 6.98 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 6-8            | MAZ3068-M             |
| MAZ8068-H   | 6.85               | 7.00 | 7.20 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 6^8            | MAZ3068-H             |
| MAZ8075     | 7.00               | 7.50 | 7.90 | 5                   | 0.1             | 5.0                | 20                   | 5                   | 60              | 0.5                 | 4.0                                      | 5                   | 7_5or7-5or7^5  | MAZ3075               |
| MAZ8075-L   | 7.07               | 7.30 | 7.43 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 7_5            | MAZ3075-L             |
| MAZ8075-M   | 7.29               | 7.50 | 7.67 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 7-5            | MAZ3075-M             |
| MAZ8075-H   | 7.51               | 7.70 | 7.89 | 5                   | 0.1             | 5.0                | 20                   | 5                   | 60              | 0.5                 | 4.0                                      | 5                   | 7^5            | MAZ3075-H             |
| MAZ8082     | 7.70               | 8.20 | 8.70 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 8_2or8-2or8^2  | MAZ3082               |
| MAZ8082-L   | 7.77               | 7.90 | 8.17 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 8_2            | MAZ3082-L             |
| MAZ8082-M   | 8.03               | 8.20 | 8.43 | 5                   | 0.1             | 5.0                | 20                   | 5                   | 60              | 0.5                 | 4.6                                      | 5                   | 8-2            | MAZ3082-M             |
| MAZ8082-H   | 8.29               | 8.50 | 8.70 |                     |                 |                    |                      |                     |                 |                     |                                          |                     | 8^2            | MAZ3082-H             |

■ Electrical characteristics within part numbers (continued)  $T_a = 25^\circ\text{C}$

| Part Number | Zener voltage      |       |       |                     | Reverse current    |                    | Operating resistance |                     |                     |                        | Temperature coefficient of zener voltage |                     | Marking Symbol | Conventional products |
|-------------|--------------------|-------|-------|---------------------|--------------------|--------------------|----------------------|---------------------|---------------------|------------------------|------------------------------------------|---------------------|----------------|-----------------------|
|             | V <sub>Z</sub> (V) |       |       | I <sub>R</sub> (μA) | V <sub>R</sub> (V) | R <sub>Z</sub> (Ω) | I <sub>Z</sub> (mA)  | R <sub>ZK</sub> (Ω) | I <sub>Z</sub> (mA) | S <sub>Z</sub> (mV/°C) |                                          |                     |                |                       |
|             | Min                | Nom   | Max   |                     |                    |                    |                      |                     |                     | I <sub>Z</sub> (mA)    | Typ                                      | I <sub>Z</sub> (mA) |                |                       |
| MAZ8091     | 8.50               | 9.10  | 9.60  | 5                   | 0.1                | 6.0                | 20                   | 5                   | 60                  | 0.5                    | 5.5                                      | 5                   | 9_1or9-1or9^1  | MAZ3091               |
| MAZ8091-L   | 8.58               | 8.80  | 9.02  |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 9_1            | MAZ3091-L             |
| MAZ8091-M   | 8.87               | 9.10  | 9.33  |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 9-1            | MAZ3091-M             |
| MAZ8091-H   | 9.14               | 9.40  | 9.60  |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 9^1            | MAZ3091-H             |
| MAZ8100     | 9.40               | 10.00 | 10.60 | 5                   | 0.05               | 7.0                | 30                   | 5                   | 60                  | 0.5                    | 6.4                                      | 5                   | 10_or10-or10^A | MAZ3100               |
| MAZ8100-L   | 9.44               | 9.70  | 9.92  |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 10_            | MAZ3100-L             |
| MAZ8100-M   | 9.75               | 10.00 | 10.25 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 10-            | MAZ3100-M             |
| MAZ8100-H   | 10.07              | 10.30 | 10.59 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 10^            | MAZ3100-H             |
| MAZ8110     | 10.40              | 11.00 | 11.60 | 5                   | 0.05               | 8.0                | 30                   | 5                   | 60                  | 0.5                    | 7.4                                      | 5                   | 11_or11-or11^A | MAZ3110               |
| MAZ8110-L   | 10.40              | 10.70 | 10.94 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 11_            | MAZ3110-L             |
| MAZ8110-M   | 10.73              | 11.00 | 11.28 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 11-            | MAZ3110-M             |
| MAZ8110-H   | 11.05              | 11.30 | 11.60 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 11^            | MAZ3110-H             |
| MAZ8120     | 11.40              | 12.00 | 12.70 | 5                   | 0.05               | 9.0                | 30                   | 5                   | 80                  | 0.5                    | 8.4                                      | 5                   | 12_or12-or12^A | MAZ3120               |
| MAZ8120-L   | 11.40              | 11.70 | 11.96 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 12_            | MAZ3120-L             |
| MAZ8120-M   | 11.73              | 12.00 | 12.33 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 12-            | MAZ3120-M             |
| MAZ8120-H   | 12.06              | 12.30 | 12.68 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 12^            | MAZ3120-H             |
| MAZ8130     | 12.40              | 13.00 | 14.10 | 5                   | 0.05               | 10.0               | 35                   | 5                   | 80                  | 0.5                    | 9.4                                      | 5                   | 13_or13-or13^A | MAZ3130               |
| MAZ8130-L   | 12.40              | 12.70 | 12.99 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 13_            | MAZ3130-L             |
| MAZ8130-M   | 12.73              | 13.00 | 13.40 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 13-            | MAZ3130-M             |
| MAZ8130-H   | 13.25              | 13.70 | 14.08 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 13^            | MAZ3130-H             |
| MAZ8140-M   | 13.65              | 14.00 | 14.35 | 5                   | 0.05               | 10.0               | 40                   | 5                   | 80                  | 0.5                    | 10.0                                     | 5                   | 14-            | MAZ3140-M             |
| MAZ8150     | 13.90              | 15.00 | 15.60 | 5                   | 0.05               | 11.0               | 40                   | 5                   | 80                  | 0.5                    | 11.4                                     | 5                   | 15_or15-or15^A | MAZ3150               |
| MAZ8150-L   | 13.90              | 14.30 | 14.76 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 15_            | MAZ3150-L             |
| MAZ8150-M   | 14.60              | 15.00 | 15.35 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 15-            | MAZ3150-M             |
| MAZ8150-H   | 14.95              | 15.30 | 15.60 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 15^            | MAZ3150-H             |
| MAZ8160     | 15.30              | 16.00 | 17.10 | 5                   | 0.05               | 12.0               | 50                   | 5                   | 80                  | 0.5                    | 12.4                                     | 5                   | 16_or16-or16^A | MAZ3160               |
| MAZ8160-L   | 15.30              | 15.70 | 16.09 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 16_            | MAZ3160-L             |
| MAZ8160-M   | 15.70              | 16.00 | 16.50 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 16-            | MAZ3160-M             |
| MAZ8160-H   | 16.26              | 16.70 | 17.10 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 16^            | MAZ3160-H             |
| MAZ8180     | 16.90              | 18.00 | 19.10 | 5                   | 0.05               | 13.0               | 60                   | 5                   | 80                  | 0.5                    | 14.4                                     | 5                   | 18_or18-or18^A | MAZ3180               |
| MAZ8180-L   | 16.90              | 17.30 | 17.76 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 18_            | MAZ3180-L             |
| MAZ8180-M   | 17.55              | 18.00 | 18.45 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 18-            | MAZ3180-M             |
| MAZ8180-H   | 18.20              | 18.70 | 19.10 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 18^            | MAZ3180-H             |
| MAZ8200     | 18.80              | 20.00 | 21.20 | 5                   | 0.05               | 15.0               | 80                   | 5                   | 100                 | 0.5                    | 16.4                                     | 5                   | 20_or20-or20^A | MAZ3200               |
| MAZ8200-L   | 18.85              | 19.30 | 19.81 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 20_            | MAZ3200-L             |
| MAZ8200-M   | 19.50              | 20.00 | 20.50 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 20-            | MAZ3200-M             |
| MAZ8200-H   | 20.15              | 20.70 | 21.19 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 20^            | MAZ3200-H             |
| MAZ8220     | 20.80              | 22.00 | 23.30 | 5                   | 0.05               | 17.0               | 80                   | 5                   | 100                 | 0.5                    | 18.4                                     | 5                   | 22_or22-or22^A | MAZ3220               |
| MAZ8220-L   | 20.80              | 21.30 | 21.86 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 22_            | MAZ3220-L             |
| MAZ8220-M   | 21.45              | 22.00 | 22.55 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 22-            | MAZ3220-M             |
| MAZ8220-H   | 22.10              | 22.70 | 23.24 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 22^            | MAZ3220-H             |
| MAZ8240     | 22.80              | 24.00 | 25.60 | 5                   | 0.05               | 19.0               | 100                  | 5                   | 120                 | 0.5                    | 20.4                                     | 5                   | 24_or24-or24^A | MAZ3240               |
| MAZ8240-L   | 22.80              | 23.30 | 23.97 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 24_            | MAZ3240-L             |
| MAZ8240-M   | 23.50              | 24.00 | 24.70 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 24-            | MAZ3240-M             |
| MAZ8240-H   | 24.35              | 25.00 | 25.60 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 24^            | MAZ3240-H             |
| MAZ8270     | 25.10              | 27.00 | 28.90 | 2                   | 0.05               | 21.0               | 120                  | 2                   | 120                 | 0.5                    | 23.4                                     | 2                   | 27_or27-or27^A | MAZ3270               |
| MAZ8270-L   | 25.30              | 26.00 | 26.70 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 27_            | MAZ3270-L             |
| MAZ8270-M   | 26.30              | 27.00 | 27.70 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 27-            | MAZ3270-M             |
| MAZ8270-H   | 27.30              | 28.00 | 28.70 |                     |                    |                    |                      |                     |                     |                        |                                          |                     | 27^            | MAZ3270-H             |

■ Electrical characteristics within part numbers (continued)  $T_a = 25^\circ\text{C}$

| Part Number | Zener voltage      |       |       | Reverse current            |                    | Operating resistance |     |                            |                     | Temperature coefficient of zener voltage |      | Marking Symbol | Conventional products |                     |
|-------------|--------------------|-------|-------|----------------------------|--------------------|----------------------|-----|----------------------------|---------------------|------------------------------------------|------|----------------|-----------------------|---------------------|
|             | V <sub>Z</sub> (V) |       |       | I <sub>R</sub> (μA)<br>Max | V <sub>R</sub> (V) | R <sub>Z</sub> (Ω)   |     | R <sub>ZK</sub> (Ω)<br>Max | I <sub>Z</sub> (mA) | S <sub>Z</sub> (mV/°C)                   |      |                |                       |                     |
|             | Min                | Nom   | Max   |                            |                    | I <sub>Z</sub> (mA)  | Max |                            |                     | I <sub>Z</sub> (mA)                      | Typ  |                |                       | I <sub>Z</sub> (mA) |
| MAZ8300     | 28.00              | 30.00 | 32.00 | 2                          | 0.05               | 23.0                 | 160 | 2                          | 160                 | 0.5                                      | 26.6 | 2              | 30_or30-or30^         | MAZ3300             |
| MAZ8300-L   | 28.30              | 29.00 | 29.70 |                            |                    |                      |     |                            |                     |                                          |      |                | 30_                   | MAZ3300-L           |
| MAZ8300-M   | 29.30              | 30.00 | 30.80 |                            |                    |                      |     |                            |                     |                                          |      |                | 30-                   | MAZ3300-M           |
| MAZ8300-H   | 30.20              | 31.00 | 31.80 |                            |                    |                      |     |                            |                     |                                          |      |                | 30^                   | MAZ3300-H           |
| MAZ8330     | 31.00              | 33.00 | 35.00 | 2                          | 0.05               | 25.0                 | 200 | 2                          | 200                 | 0.5                                      | 29.7 | 2              | 33_or33-or33^         | MAZ3330             |
| MAZ8330-L   | 31.20              | 32.00 | 32.80 |                            |                    |                      |     |                            |                     |                                          |      |                | 33_                   | MAZ3330-L           |
| MAZ8330-M   | 32.20              | 33.00 | 33.80 |                            |                    |                      |     |                            |                     |                                          |      |                | 33-                   | MAZ3330-M           |
| MAZ8330-H   | 33.20              | 34.00 | 34.90 |                            |                    |                      |     |                            |                     |                                          |      |                | 33^                   | MAZ3330-H           |
| MAZ8360     | 34.00              | 36.00 | 38.00 | 2                          | 0.05               | 27.0                 | 250 | 2                          | 250                 | 0.5                                      | 33.0 | 2              | 36_or36-or36^         | MAZ3360             |
| MAZ8360-L   | 34.10              | 35.00 | 35.90 |                            |                    |                      |     |                            |                     |                                          |      |                | 36_                   | MAZ3360-L           |
| MAZ8360-M   | 35.10              | 36.00 | 36.90 |                            |                    |                      |     |                            |                     |                                          |      |                | 36-                   | MAZ3360-M           |
| MAZ8360-H   | 36.10              | 37.00 | 37.90 |                            |                    |                      |     |                            |                     |                                          |      |                | 36^                   | MAZ3360-H           |
| MAZ8390     | 37.00              | 39.00 | 41.00 | 2                          | 0.05               | 30.0                 | 300 | 2                          | 300                 | 0.5                                      | 35.6 | 2              | 39_or39-or39^         | —                   |
| MAZ8390-L   | 37.10              | 38.00 | 39.00 |                            |                    |                      |     |                            |                     |                                          |      |                | 39_                   | —                   |
| MAZ8390-M   | 38.00              | 39.00 | 40.00 |                            |                    |                      |     |                            |                     |                                          |      |                | 39-                   | —                   |
| MAZ8390-H   | 39.00              | 40.00 | 41.00 |                            |                    |                      |     |                            |                     |                                          |      |                | 39^                   | —                   |

Note) 1. The  $V_Z$  value is the one after power application for 20 ms at  $T_a = 25^\circ\text{C}$ .  
 2. The zener voltage temperature coefficient is the one for  $T_j = 25^\circ\text{C}$  to  $150^\circ\text{C}$ .

