

# Zener diode

## RLZ3.9B

### ●Applications

Voltage regulation

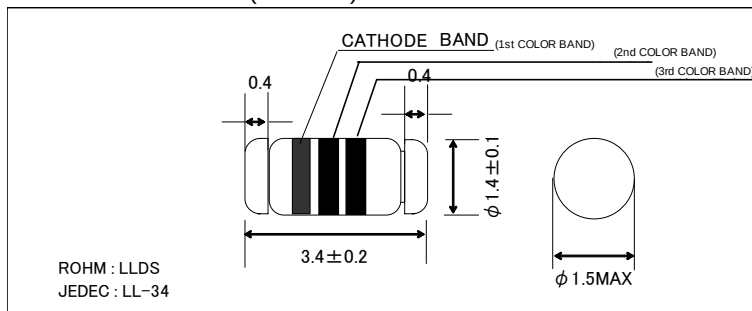
### ●Features

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

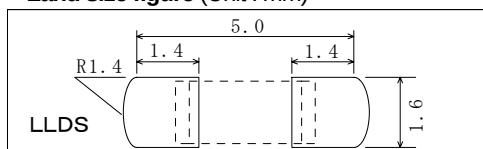
### ●Construction

Silicon planar

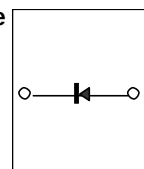
### ●External dimensions (Unit : mm)



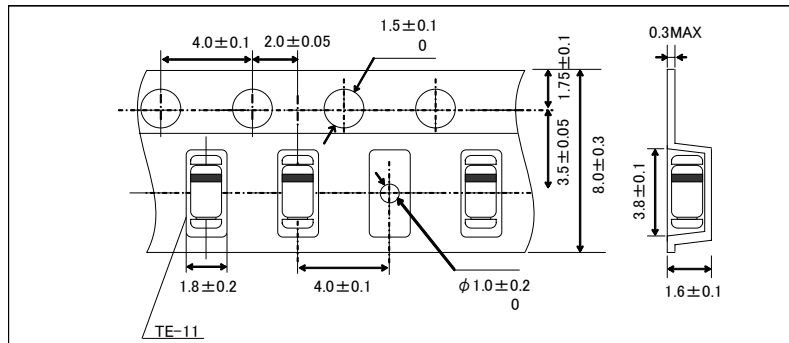
### ●Land size figure (Unit : mm)



### ●Structure



### ●Taping specifications (Unit : mm)



### ●Absolute maximum ratings (Ta=25°C)

| Parameter            | Symbol           | Limits      | Unit |
|----------------------|------------------|-------------|------|
| Power dissipation    | P                | 500         | mW   |
| Junction temperature | T <sub>J</sub>   | 175         | °C   |
| Storage temperature  | T <sub>stg</sub> | -65 to +175 | °C   |

## Diodes

| TYP.     | Symbol                |        |        |                                       |        |                                              |        |                                |       |
|----------|-----------------------|--------|--------|---------------------------------------|--------|----------------------------------------------|--------|--------------------------------|-------|
|          | Zener voltage : Vz(V) |        |        | Operating resistance : Zz( $\Omega$ ) |        | Rising operating resistance : Zz( $\Omega$ ) |        | Reverse current : IR( $\mu$ A) |       |
|          | MIN.                  | MAX.   | Iz(mA) | MAX.                                  | Iz(mA) | MAX.                                         | Iz(mA) | MAX.                           | VR(V) |
| RLZ 3.6B | 3.600                 | 3.845  | 20.0   | 60                                    | 20.0   | 1000                                         | 1.0    | 10.0                           | 1.0   |
| RLZ 3.9B | 3.890                 | 4.160  | 20.0   | 50                                    | 20.0   | 1000                                         | 1.0    | 5.0                            | 1.0   |
| RLZ 4.3B | 4.170                 | 4.430  | 20.0   | 40                                    | 20.0   | 1000                                         | 1.0    | 5.0                            | 1.0   |
| RLZ 4.7B | 4.550                 | 4.800  | 20.0   | 25                                    | 20.0   | 900                                          | 1.0    | 5.0                            | 1.0   |
| RLZ 5.1B | 4.940                 | 5.200  | 20.0   | 20                                    | 20.0   | 800                                          | 1.0    | 5.0                            | 1.5   |
| RLZ 5.6B | 5.450                 | 5.730  | 20.0   | 13                                    | 20.0   | 500                                          | 1.0    | 5.0                            | 2.5   |
| RLZ 6.2B | 5.960                 | 6.270  | 20.0   | 10                                    | 20.0   | 300                                          | 1.0    | 5.0                            | 3.0   |
| RLZ 6.8B | 6.490                 | 6.830  | 20.0   | 8                                     | 20.0   | 150                                          | 0.5    | 2.0                            | 3.5   |
| RLZ 7.5B | 7.070                 | 7.450  | 20.0   | 8                                     | 20.0   | 120                                          | 0.5    | 0.5                            | 4.0   |
| RLZ 8.2B | 7.780                 | 8.190  | 20.0   | 8                                     | 20.0   | 120                                          | 0.5    | 0.5                            | 5.0   |
| RLZ 9.1B | 8.570                 | 9.010  | 20.0   | 8                                     | 20.0   | 120                                          | 0.5    | 0.5                            | 6.0   |
| RLZ 10B  | 9.410                 | 9.900  | 20.0   | 8                                     | 20.0   | 120                                          | 0.5    | 0.2                            | 7.0   |
| RLZ 11B  | 10.500                | 11.050 | 10.0   | 10                                    | 10.0   | 120                                          | 0.5    | 0.2                            | 8.0   |
| RLZ 12B  | 11.440                | 12.030 | 10.0   | 12                                    | 10.0   | 110                                          | 0.5    | 0.2                            | 9.0   |
| RLZ 13B  | 12.550                | 13.210 | 10.0   | 14                                    | 10.0   | 110                                          | 0.5    | 0.2                            | 10.0  |
| RLZ 15B  | 13.890                | 14.620 | 10.0   | 16                                    | 10.0   | 110                                          | 0.5    | 0.2                            | 11.0  |
| RLZ 16B  | 15.250                | 16.040 | 10.0   | 18                                    | 10.0   | 150                                          | 0.5    | 0.2                            | 12.0  |
| RLZ 18B  | 16.820                | 17.700 | 10.0   | 23                                    | 10.0   | 150                                          | 0.5    | 0.2                            | 13.0  |
| RLZ 20B  | 18.630                | 19.590 | 10.0   | 28                                    | 10.0   | 200                                          | 0.5    | 0.2                            | 15.0  |
| RLZ 22B  | 20.640                | 21.710 | 5.0    | 30                                    | 5.0    | 200                                          | 0.5    | 0.2                            | 17.0  |
| RLZ 24B  | 22.610                | 23.770 | 5.0    | 35                                    | 5.0    | 200                                          | 0.5    | 0.2                            | 19.0  |
| RLZ 27B  | 24.970                | 26.260 | 5.0    | 45                                    | 5.0    | 250                                          | 0.5    | 0.2                            | 21.0  |
| RLZ 30B  | 27.700                | 29.130 | 5.0    | 55                                    | 5.0    | 250                                          | 0.5    | 0.2                            | 23.0  |
| RLZ 33B  | 30.320                | 31.880 | 5.0    | 65                                    | 5.0    | 250                                          | 0.5    | 0.2                            | 25.0  |
| RLZ 36B  | 32.790                | 34.490 | 5.0    | 75                                    | 5.0    | 250                                          | 0.5    | 0.2                            | 27.0  |
| RLZ 39B  | 35.360                | 37.190 | 5.0    | 85                                    | 5.0    | 250                                          | 0.5    | 0.2                            | 30.0  |

## ●Type No.

| TYPE     | TYPE NO.       |                | TYPE    | TYPE NO.       |                |
|----------|----------------|----------------|---------|----------------|----------------|
|          | 1st COLOR BAND | 2nd COLOR BAND |         | 1st COLOR BAND | 2nd COLOR BAND |
| RLZ 3.6B | 0              | 7              | RLZ 12B | 2              | 0              |
| RLZ 3.9B | 0              | 8              | RLZ 13B | 2              | 1              |
| RLZ 4.3B | 0              | 9              | RLZ 15B | 2              | 2              |
| RLZ 4.7B | 1              | 0              | RLZ 16B | 2              | 3              |
| RLZ 5.1B | 1              | 1              | RLZ 18B | 2              | 4              |
| RLZ 5.6B | 1              | 2              | RLZ 20B | 2              | 5              |
| RLZ 6.2B | 1              | 3              | RLZ 22B | 2              | 6              |
| RLZ 6.8B | 1              | 4              | RLZ 24B | 2              | 7              |
| RLZ 7.5B | 1              | 5              | RLZ 27B | 2              | 8              |
| RLZ 8.2B | 1              | 6              | RLZ 30B | 2              | 9              |
| RLZ 9.1B | 1              | 7              | RLZ 33B | 3              | 0              |
| RLZ 10B  | 1              | 8              | RLZ 36B | 3              | 1              |
| RLZ 11B  | 1              | 9              | RLZ 39B | 3              | 2              |

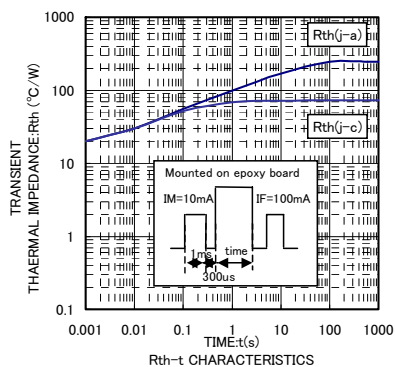
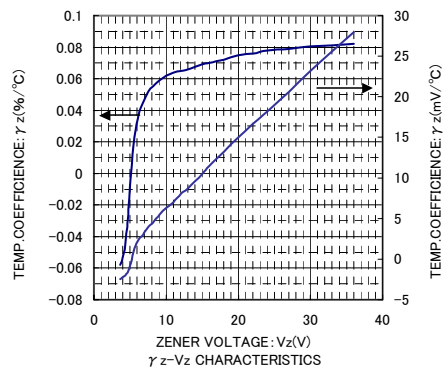
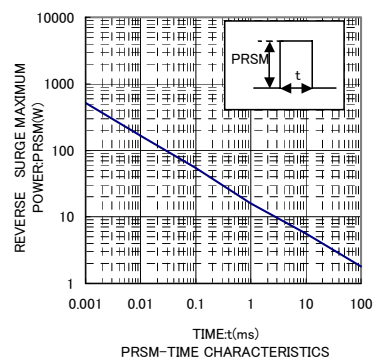
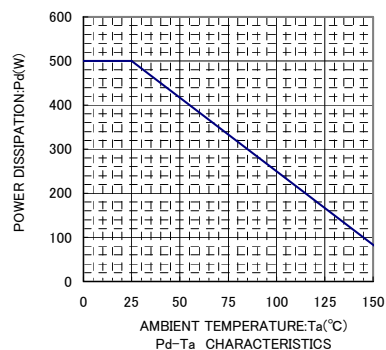
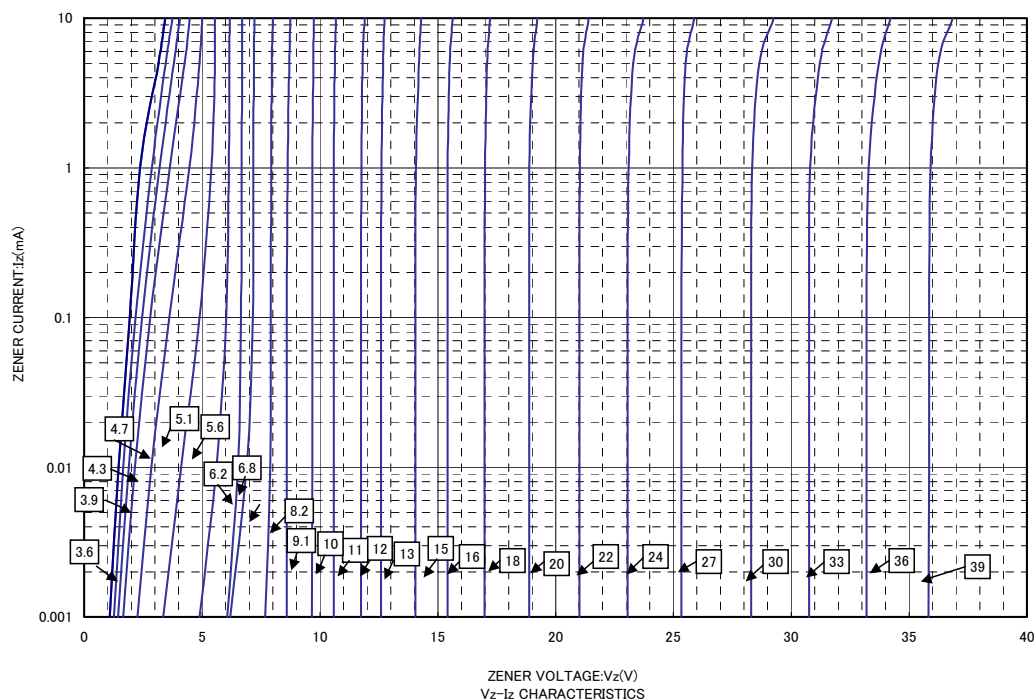
| 1st COLOR BAND | Color  |
|----------------|--------|
| 0              | Black  |
| 1              | Brown  |
| 2              | Red    |
| 3              | Orange |

| 2nd COLOR BAND | Color  |
|----------------|--------|
| 0              | Black  |
| 1              | Brown  |
| 2              | Red    |
| 3              | Orange |
| 4              | Yellow |
| 5              | Green  |
| 6              | Blue   |
| 7              | Purple |
| 8              | Gray   |
| 9              | White  |

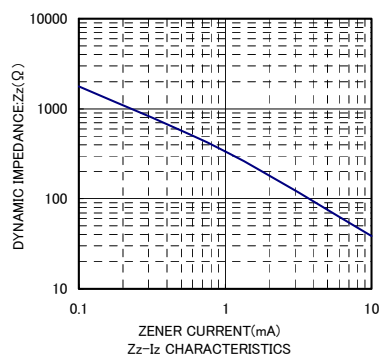
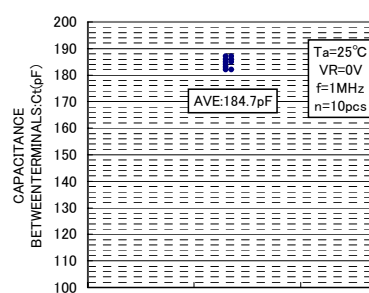
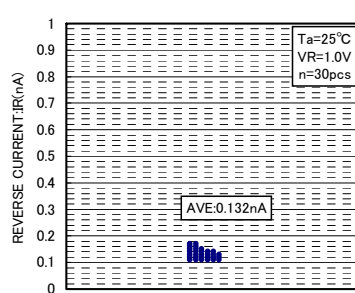
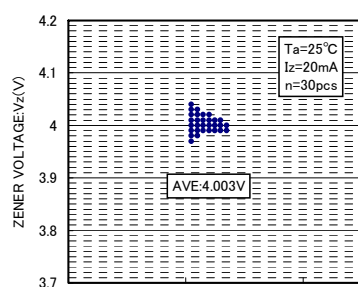
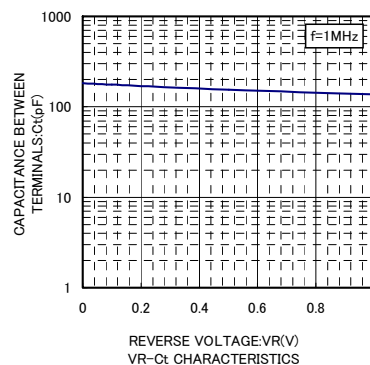
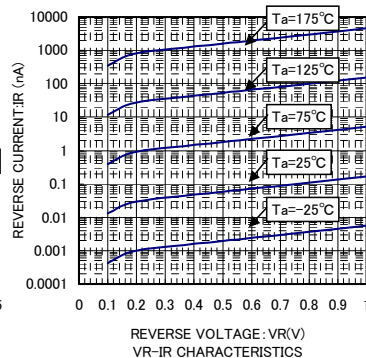
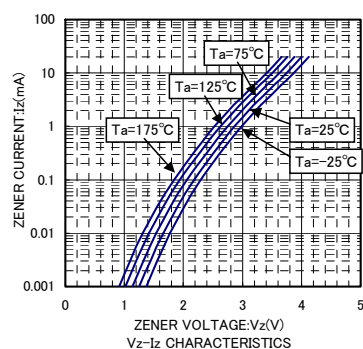
| 3rd COLOR BAND | Color  |
|----------------|--------|
| A 、 E          | Yellow |
| B 、 F          | Green  |
| C 、 G          | Blue   |
| D              | White  |

## Diodes

## ●Electrical characteristics (Ta=25°C)



## Diodes



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