



## Feature

High reliability

Small power mold type

## Application

Structure

## Structure

Silicon Epitaxial Planar



SMA  
(DO-214AC)



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

| Parameter                      | Symbol    | Value           | Unit               |
|--------------------------------|-----------|-----------------|--------------------|
| Power Dissipation              | $P_D$     | 1 <sup>1)</sup> | W                  |
| Operating Junction Temperature | $T_J$     | 175             | $^{\circ}\text{C}$ |
| Storage Temperature Range      | $T_{stg}$ | - 65 to + 175   | $^{\circ}\text{C}$ |

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature.

## Thermal Characteristics

| Parameter                                | Symbol          | Max.              | Unit                 |
|--|-----------------|-------------------|----------------------|
| Thermal Resistance Junction to Ambient   | $R_{\theta JA}$ | 170 <sup>1)</sup> | $^{\circ}\text{C/W}$ |
| Forward Voltage at $I_F = 200\text{ mA}$ | $V_F$           | 1.2               | V                    |

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature.



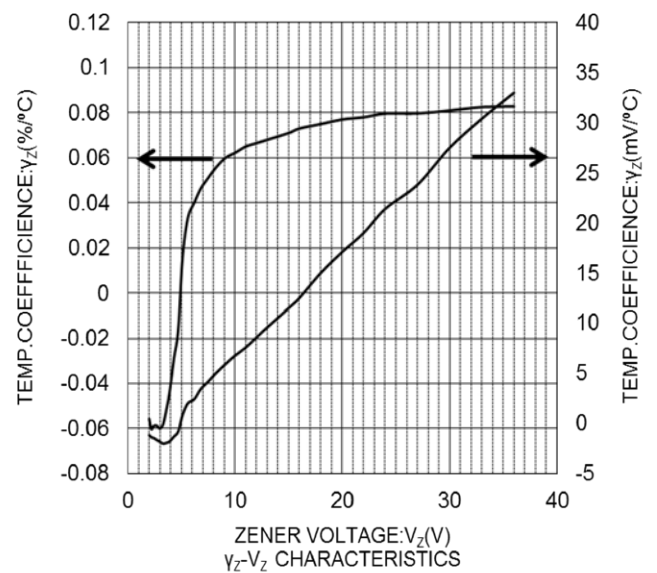
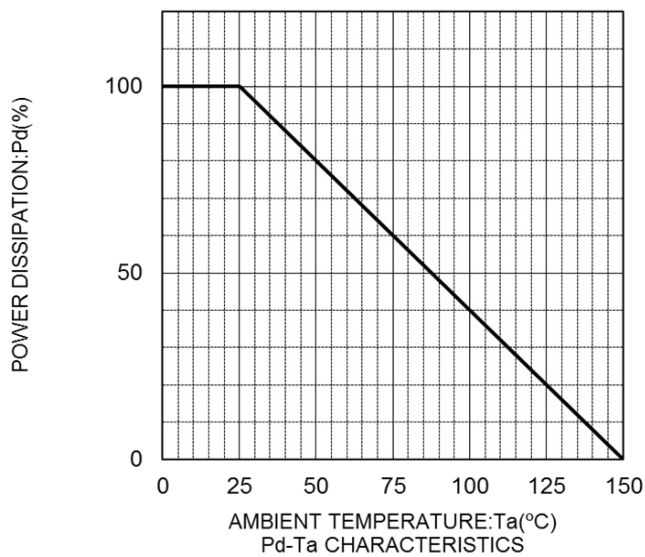
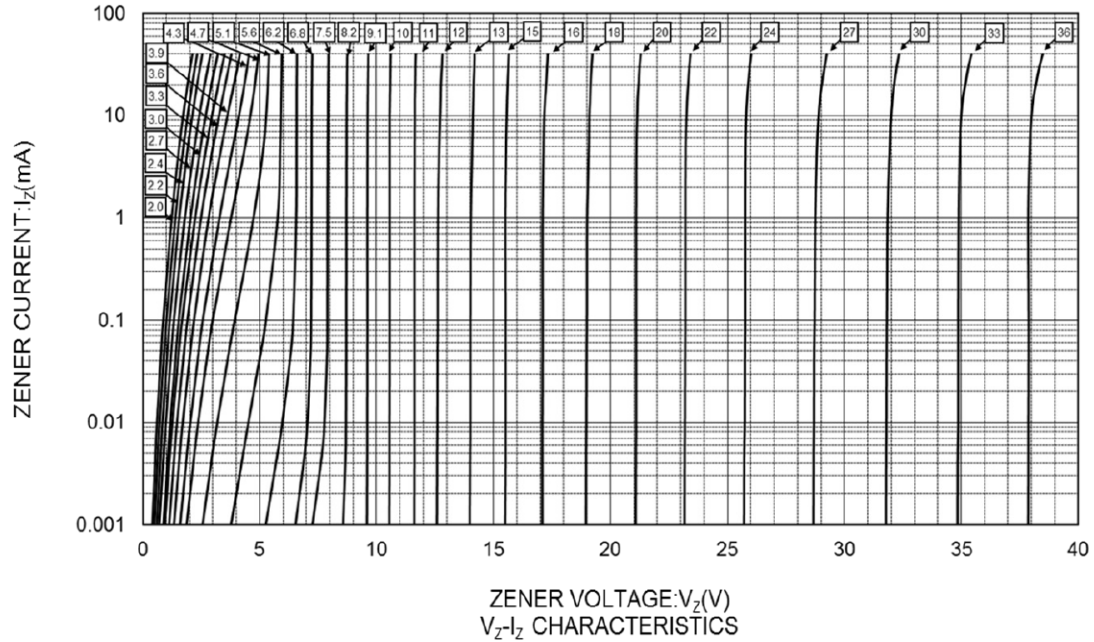
Characteristics at  $T_a = 25^\circ\text{C}$

| P/N      | Symbol                         |        |                  |                                  |                  |                                     |                 |
|----------|--------------------------------|--------|------------------|----------------------------------|------------------|-------------------------------------|-----------------|
|          | Zener Voltage: $V_Z(\text{V})$ |        |                  | Dynamic Impedance: $Z_Z(\Omega)$ |                  | Reverse Current: $I_R(\mu\text{A})$ |                 |
|          | MIN.                           | MAX.   | $I_Z(\text{mA})$ | MAX.                             | $I_Z(\text{mA})$ | MAX.                                | $V_R(\text{V})$ |
| PTZ 2.0B | 2.000                          | 2.240  | 40               | 25                               | 40               | 200                                 | 0.5             |
| PTZ 2.2B | 2.200                          | 2.450  | 40               | 20                               | 40               | 200                                 | 0.7             |
| PTZ 2.4B | 2.400                          | 2.700  | 40               | 15                               | 40               | 200                                 | 1.0             |
| PTZ 2.7B | 2.700                          | 3.100  | 40               | 15                               | 40               | 200                                 | 1.0             |
| PTZ 3.0B | 3.000                          | 3.400  | 40               | 15                               | 40               | 100                                 | 1.0             |
| PTZ 3.3B | 3.300                          | 3.700  | 40               | 15                               | 40               | 80                                  | 1.0             |
| PTZ 3.6B | 3.600                          | 4.000  | 40               | 15                               | 40               | 60                                  | 1.0             |
| PTZ 3.9B | 3.900                          | 4.400  | 40               | 15                               | 40               | 40                                  | 1.0             |
| PTZ 4.3B | 4.300                          | 4.800  | 40               | 15                               | 40               | 20                                  | 1.0             |
| PTZ 4.7B | 4.700                          | 5.200  | 40               | 10                               | 40               | 20                                  | 1.0             |
| PTZ 5.1B | 5.100                          | 5.700  | 40               | 8                                | 40               | 20                                  | 1.0             |
| PTZ 5.6B | 5.600                          | 6.300  | 40               | 8                                | 40               | 20                                  | 1.5             |
| PTZ 6.2B | 6.200                          | 7.000  | 40               | 6                                | 40               | 20                                  | 3.0             |
| PTZ 6.8B | 6.800                          | 7.700  | 40               | 6                                | 40               | 20                                  | 3.5             |
| PTZ 7.5B | 7.500                          | 8.400  | 40               | 4                                | 40               | 20                                  | 4.0             |
| PTZ 8.2B | 8.200                          | 9.300  | 40               | 4                                | 40               | 20                                  | 5.0             |
| PTZ 9.1B | 9.100                          | 10.200 | 40               | 6                                | 40               | 20                                  | 6.0             |
| PTZ 10B  | 10.000                         | 11.200 | 40               | 6                                | 40               | 10                                  | 7.0             |
| PTZ 11B  | 11.000                         | 12.300 | 20               | 8                                | 20               | 10                                  | 8.0             |
| PTZ 12B  | 12.000                         | 13.500 | 20               | 8                                | 20               | 10                                  | 9.0             |
| PTZ 13B  | 13.300                         | 15.000 | 20               | 10                               | 20               | 10                                  | 10.0            |
| PTZ 15B  | 14.700                         | 16.500 | 20               | 10                               | 20               | 10                                  | 11.0            |
| PTZ 16B  | 16.200                         | 18.300 | 20               | 12                               | 20               | 10                                  | 12.0            |
| PTZ 18B  | 18.000                         | 20.300 | 20               | 12                               | 20               | 10                                  | 13.0            |
| PTZ 20B  | 20.000                         | 22.400 | 20               | 14                               | 20               | 10                                  | 15.0            |
| PTZ 22B  | 22.000                         | 24.500 | 10               | 14                               | 10               | 10                                  | 17.0            |
| PTZ 24B  | 24.000                         | 27.600 | 10               | 16                               | 10               | 10                                  | 19.0            |
| PTZ 27B  | 27.000                         | 30.800 | 10               | 16                               | 10               | 10                                  | 21.0            |
| PTZ 30B  | 30.000                         | 34.000 | 10               | 18                               | 10               | 10                                  | 23.0            |
| PTZ 33B  | 33.000                         | 37.000 | 10               | 18                               | 10               | 10                                  | 25.0            |
| PTZ 36B  | 36.000                         | 40.000 | 10               | 20                               | 10               | 10                                  | 27.0            |

$V_Z$  test time is 40ms.

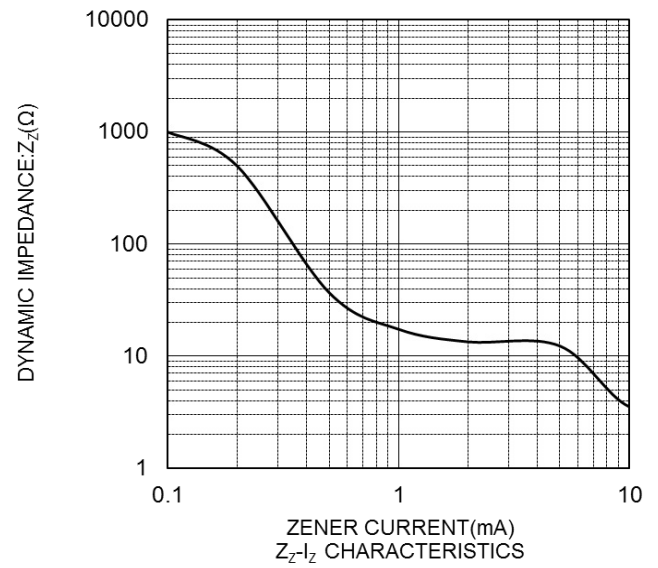
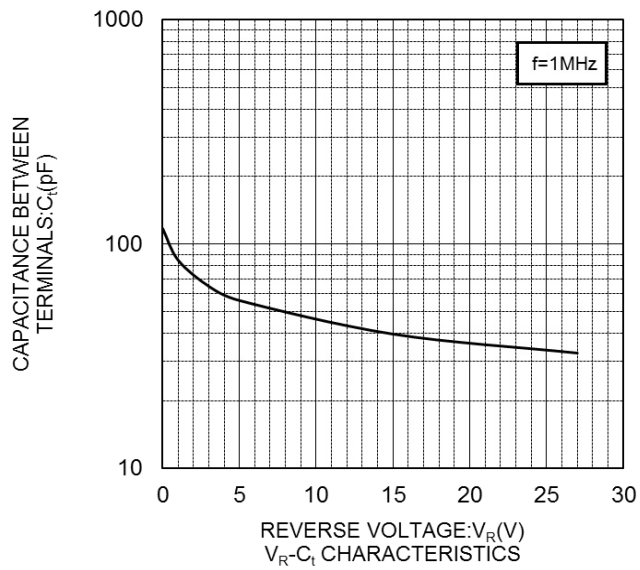
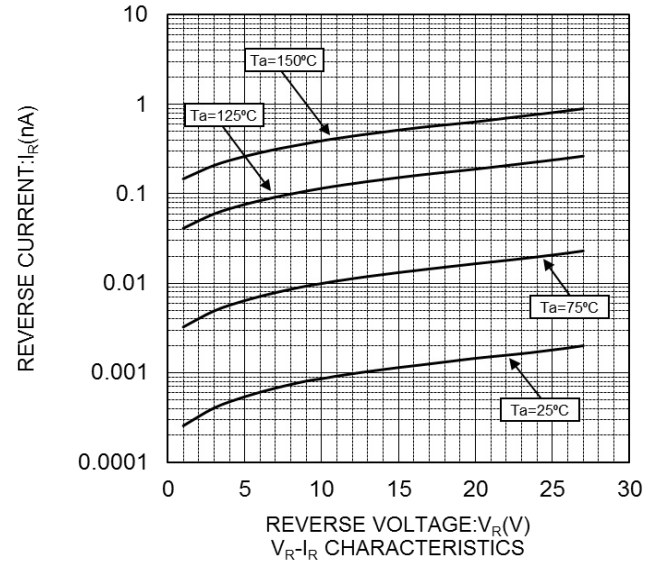
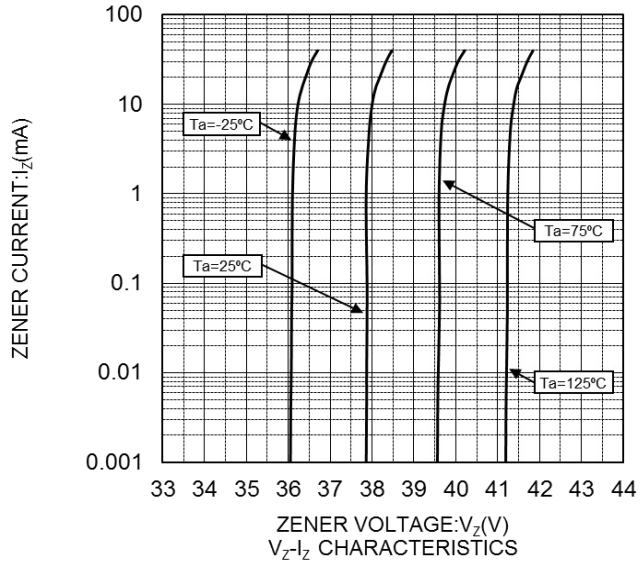


Characteristics at  $T_a = 25^\circ\text{C}$



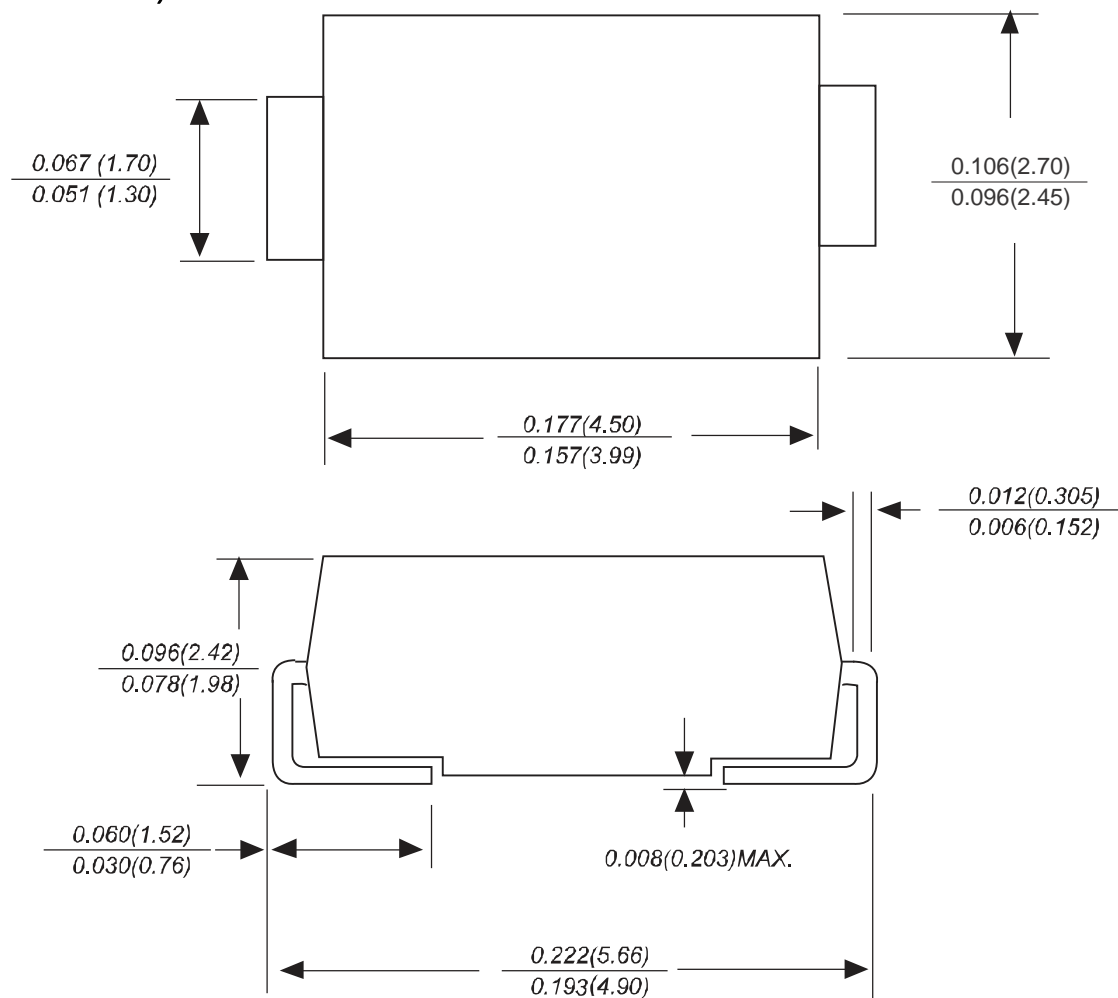


## Charcteristic Curves





**Package Outline Dimensions**  
**SMA(DO-214AC)**



*Dimensions in inches and (millimeters)*



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