

# Bi-Directional Zener Diodes

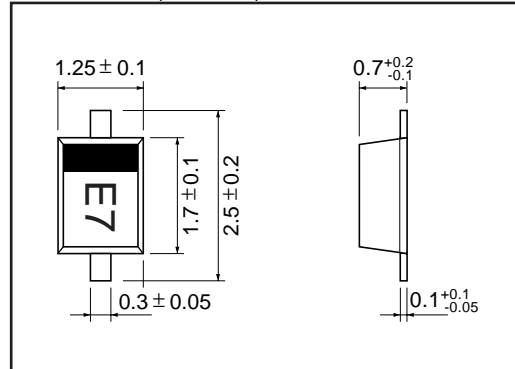
## RSB18V

### ●Outline

RSB18V is a bi-directional zener diode having two zeners confronted in one package, aimed to absorb the surge in plus and minus directions arising from the signal line in mobile phone, consumer electronics such as PC, and automotive applications.

In general, two pieces of zener diodes are used as ESD protector to absorb the surge in +/- directions. Paying attention to this point and using its original technology, ROHM succeeded to incorporate 2 zeners in one die / package for benefit of space-saving on the circuit board.

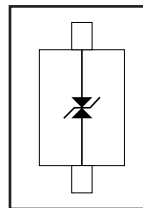
### ●Dimensions (Unit : mm)



### ●Features

- 1) Absorption of plus & minus surge with one package.
- 2) Decrease of components and space-saving on the circuit board.

### ●Structure



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

| Parameter                   | Symbol | Limits      | Unit |
|-----------------------------|--------|-------------|------|
| Power dissipation           | Pd     | 200         | mW   |
| Junction temperature        | Tj     | 150         | °C   |
| Operation temperature range | Tstg   | -55 to +150 | °C   |

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

| Parameter                     | Symbol         | Min. | Max. | Unit | Conditions                 |
|-------------------------------|----------------|------|------|------|----------------------------|
| Zener voltage                 | V <sub>z</sub> | 16.2 | 19.8 | V    | I <sub>F</sub> =1mA        |
| Reverse current               | I <sub>R</sub> | -    | 0.1  | μA   | V <sub>R</sub> =13V        |
| Capacitance between terminals | C <sub>t</sub> | -    | 30   | pF   | V <sub>R</sub> =0V, f=1MHz |

\* Zener voltage to be measured at 40ms after current starting to apply.

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