

# BRES36VL1B2SB

Rev.A Dec.-2024

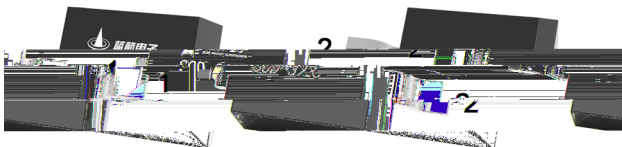
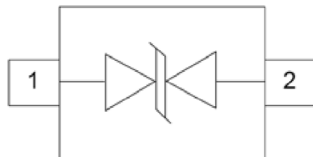
## / Descriptions

SOD-323 Plastic Package 1-Line,Bi-directional , ESD Protection Diode.

## / Features

## / Applications

Suitable for cellular phones audio,MP3 players, Digital cameras, Portable devices, mobile telephone and other users.



## / Marking

See Marking Instructions.

## / Absolute Maximum Ratings

| Parameter                                       | Symbol    | Rating   | Unit |
|-------------------------------------------------|-----------|----------|------|
| Peak Pulse Power( $t_p = 8/20\mu s$ )           | $P_{PK}$  | 320      | W    |
| Peak Pulse Current( $t_p = 8/20\mu s$ )         | $I_{PP}$  | 5        | A    |
| ESD according to IEC61000-4-2 air discharge     | $V_{ESD}$ | $\pm 30$ | KV   |
| ESD according to IEC61000-4-2 contact discharge |           | $\pm 30$ |      |
| Junction temperature                            | $T_J$     | -55~+150 |      |
| Storage Temperature                             | $T_{STG}$ | -55~+150 |      |

/ Electrical Characteristics( $T_a=25^\circ C$ )

| Parameter                               | Symbol    | Test Conditions                     | Min | Typ | Max | Unit    |
|-----------------------------------------|-----------|-------------------------------------|-----|-----|-----|---------|
| Reverse maximum working voltage         | $V_{RWM}$ |                                     |     |     | 36  | V       |
| Reverse leakage current                 | $I_R$     | $V_{RWM} = 24V$                     |     |     | 1   | $\mu A$ |
| Reverse breakdown voltage <sup>1)</sup> | $V_{BR}$  | $I_T=1mA$                           | 40  |     |     | V       |
| Clamping voltage <sup>2)</sup>          | $V_{CL}$  | $I_{PP} = 1A \quad t_p = 8/20\mu s$ |     |     | 60  | V       |
|                                         |           | $I_{PP} = 5A \quad t_p = 8/20\mu s$ |     |     | 75  | V       |
| Junction Capacitance                    | $C_J$     | $V_R = 0V \quad f = 1MHz$           |     | 15  | 20  | pF      |

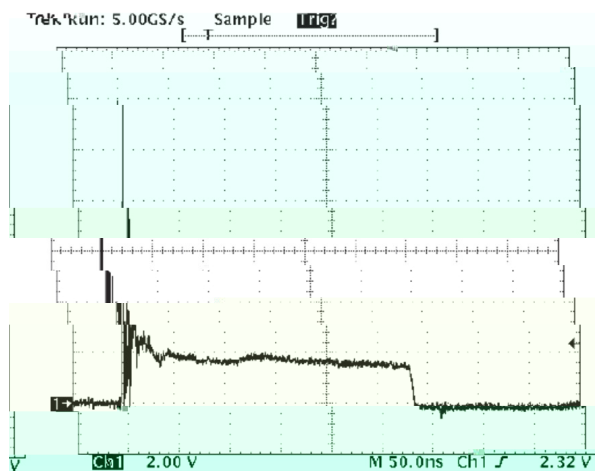
Notes:

1)  $V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of  $25^\circ C$ .

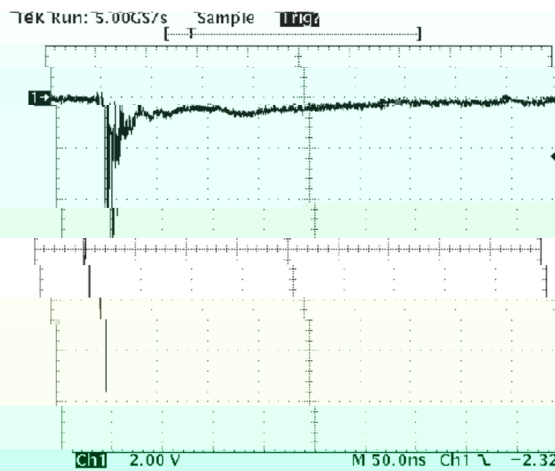
2) Non-repetitive current pulse, according to IEC61000-4-5.

/ Electrical Characteristic Curve(Ta=25 )

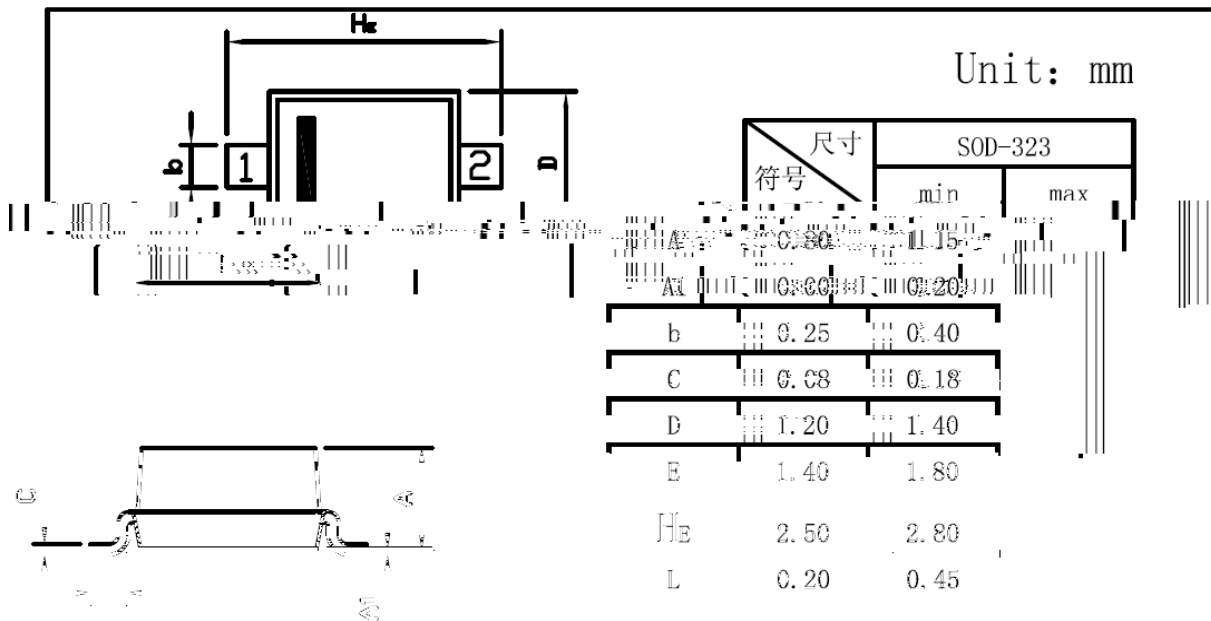
**Fig.1 ESD Clamping Voltage Screenshot  
Positive 8 kV Contact perIEC61000-4-2**



**Fig.2 ESD Clamping Voltage Screenshot  
Negative 8 kV Contact perIEC61000-4-2**

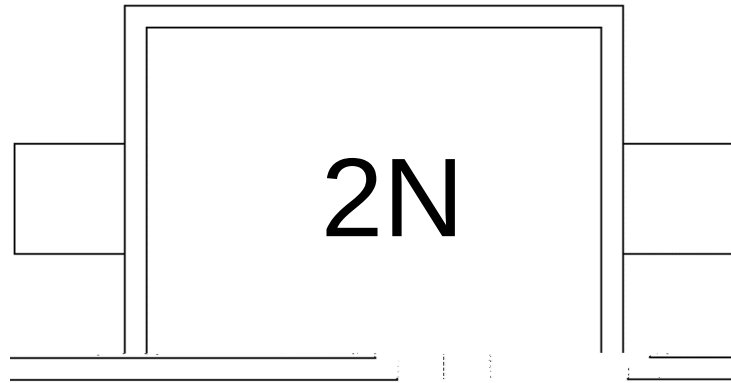


## / Package Dimensions



1. CALL 2. ANSWER 3. P.N.

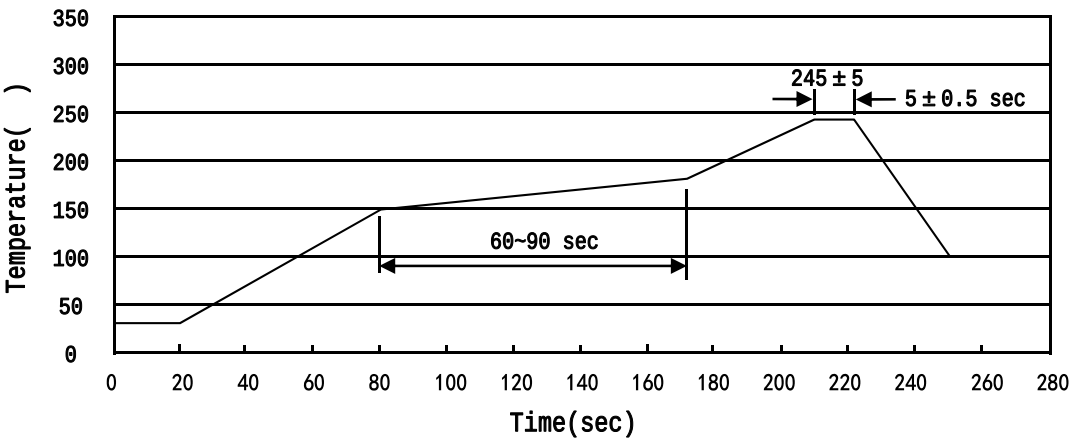
**/ Marking Instructions**



Note:

Product Type Code

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 °C , Time:60~90sec.
- 2

245 5

5 0.5sec;

2.Peak Temp.:245 ± 5 °C , Duration:5 ± 0.5sec.
- 3

2 10

/sec.

3. Cooling Speed: 2~10 °C/sec.

/ Resistance to Soldering Heat Test Conditions

260 ± 5 °C      10 ± 1 sec.      Temp.:260±5 °C      Time:10±1 sec

/ Packaging SPEC.

/ REEL

| Package Type | Units      |                 |                 |                       |                 | Dimension (unit mm <sup>3</sup> ) |             |             |
|--------------|------------|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|-------------|-------------|
|              | Units/Reel | Reels/Inner Box | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box | Reel                              | Inner Box   | Outer Box   |
| SOD-323      | 3,000      | 10              | 30,000          | 6                     | 180,000         | 7 × 8                             | 180×120×180 | 390×385×205 |

/ Notices