

**BZX584CXXX**

## / Absolute Maximum Ratings(Ta=25 )

| Parameter                                      | Symbol                            | Rating  | Unit |
|------------------------------------------------|-----------------------------------|---------|------|
| Forward Voltage ( I <sub>F</sub> =10mA)        | V <sub>F</sub>                    | 0.9     | V    |
| Power Dissipation                              | P <sub>D</sub>                    | 200     | mW   |
| Typical Thermal Resistance Junction to Ambient | R <sub>θJA</sub>                  | 833     | °C/W |
| Junction and Storage Temperature Range         | T <sub>j</sub> , T <sub>stg</sub> | -55~150 | °C   |

## / Electrical Characteristics(Ta=25 )

| Type Number | Marking Code | Zener Voltage Range(Note 1)     |         |         |                 | Maximum Zener Impedance          |                                  |                 | Maximum Reverse Current        |                |
|-------------|--------------|---------------------------------|---------|---------|-----------------|----------------------------------|----------------------------------|-----------------|--------------------------------|----------------|
|             |              | V <sub>Z</sub> @I <sub>ZT</sub> |         |         | I <sub>ZT</sub> | Z <sub>ZT</sub> @I <sub>ZT</sub> | Z <sub>ZK</sub> @I <sub>ZK</sub> | I <sub>ZK</sub> | I <sub>R</sub> @V <sub>R</sub> | V <sub>R</sub> |
|             |              | Min (V)                         | Nom (V) | Max (V) | (mA)            | Max (Ω)                          |                                  | (mA)            | Max (μA)                       | (V)            |
| BZX584C2V4  | Z7           | 2.3                             | 2.4     | 2.5     | 5               | 100                              | 1000                             | 1               | 120                            | 1              |
| BZX584C2V7  | A8           | 2.6                             | 2.7     | 2.8     | 5               | 100                              | 1000                             | 1               | 120                            | 1              |
| BZX584C3V0  | B8           | 2.9                             | 3       | 3.2     | 5               | 100                              | 1000                             | 1               | 50                             | 1              |
| BZX584C3V3  | C8           | 3.1                             | 3.3     | 3.5     | 5               | 95                               | 1000                             | 1               | 20                             | 1              |
| BZX584C3V6  | D8           | 3.4                             | 3.6     | 3.8     | 5               | 90                               | 1000                             | 1               | 10                             | 1              |
| BZX584C3V9  | E8           | 3.7                             | 3.9     | 4.1     | 5               | 90                               | 1000                             | 1               | 5                              | 1              |
| BZX584C4V3  | F8           | 4.1                             | 4.3     | 4.5     | 5               | 90                               | 1000                             | 1               | 5                              | 1              |
| BZX584C4V7  | G8           | 4.5                             | 4.7     | 4.9     | 5               | 80                               | 800                              | 1               | 2                              | 1              |
| BZX584C5V1  | H8           | 4.8                             | 5.1     | 5.4     | 5               | 60                               | 500                              | 1               | 2                              | 1.5            |
| BZX584C5V6  | I8           | 5.3                             | 5.6     | 5.9     | 5               | 40                               | 200                              | 1               | 1                              | 2.5            |
| BZX584C6V2  | J8           | 5.9                             | 6.2     | 6.5     | 5               | 10                               | 100                              | 1               | 1                              | 3              |
| BZX584C6V8  | K8           | 6.5                             | 6.8     | 7.1     | 5               | 15                               | 160                              | 1               | 0.5                            | 3.5            |
| BZX584C7V5  | L8           | 7.1                             | 7.5     | 7.9     | 5               | 15                               | 160                              | 1               | 0.5                            | 4              |
| BZX584C8V2  | M8           | 7.8                             | 8.2     | 8.6     | 5               | 15                               | 160                              | 1               | 0.5                            | 5              |
| BZX584C9V1  | N8           | 8.6                             | 9.1     | 9.6     | 5               | 15                               | 160                              | 1               | 0.5                            | 6              |
| BZX584C10   | O8           | 9.5                             | 10      | 10.5    | 5               | 20                               | 160                              | 1               | 0.1                            | 7              |

## / Electrical Characteristics(Ta=25 )

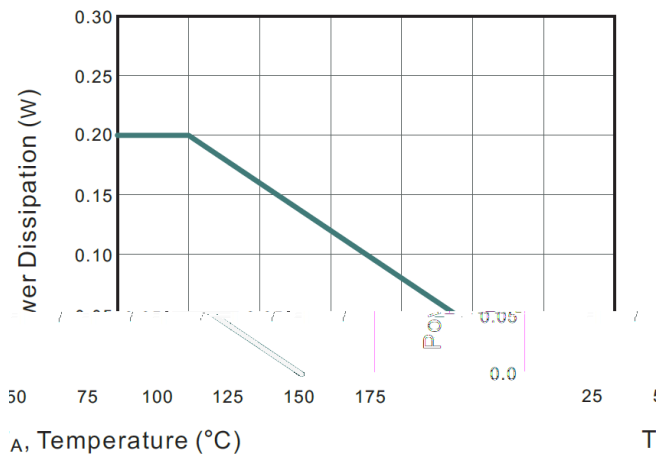
| Type Number | Marking Code | Zener Voltage Range(Note 1)     |         |         |                 | Maximum Zener Impedance          |                                  |                 | Maximum Reverse Current        |                |
|-------------|--------------|---------------------------------|---------|---------|-----------------|----------------------------------|----------------------------------|-----------------|--------------------------------|----------------|
|             |              | V <sub>Z</sub> @I <sub>ZT</sub> |         |         | I <sub>ZT</sub> | Z <sub>ZT</sub> @I <sub>ZT</sub> | Z <sub>ZK</sub> @I <sub>ZK</sub> | I <sub>ZK</sub> | I <sub>R</sub> @V <sub>R</sub> | V <sub>R</sub> |
|             |              | Min (V)                         | Nom (V) | Max (V) | (mA)            | Max (Ω)                          |                                  | (mA)            | Max (μA)                       | (V)            |
| BZX584C11   | P8           | 10.5                            | 11      | 11.6    | 5               | 20                               | 160                              | 1               | 0.1                            | 8              |
| BZX584C12   | Q8           | 11.4                            | 12      | 12.6    | 5               | 25                               | 80                               | 1               | 0.1                            | 9              |
| BZX584C13   | R8           | 12.6                            | 13.25   | 13.9    | 5               | 30                               | 80                               | 1               | 0.1                            | 10             |
| BZX584C15   | S8           | 14.3                            | 15      | 15.8    | 5               | 30                               | 80                               | 1               | 0.1                            | 11             |
| BZX584C16   | T8           | 15.4                            | 16.2    | 17.0    | 2               | 40                               | 80                               | 1               | 0.1                            | 12             |
| BZX584C18   | U8           | 17.1                            | 18      | 18.9    | 2               | 45                               | 80                               | 1               | 0.1                            | 13             |
| BZX584C20   | V8           | 19.0                            | 20      | 21.0    | 2               | 55                               | 100                              | 1               | 0.1                            | 15             |
| BZX584C22   | W8           | 20.9                            | 22      | 23.1    | 2               | 55                               | 100                              | 1               | 0.1                            | 17             |
| BZX584C24   | X8           | 23.0                            | 24.2    | 25.4    | 2               | 70                               | 120                              | 1               | 0.1                            | 19             |
| BZX584C27   | Y8           | 25.7                            | 27      | 28.4    | 2               | 80                               | 300                              | 1               | 0.1                            | 21             |
| BZX584C30   | Z8           | 28.5                            | 30      | 31.5    | 2               | 80                               | 300                              | 1               | 0.1                            | 23             |
| BZX584C33   | A9           | 31.4                            | 33      | 34.7    | 2               | 80                               | 300                              | 1               | 0.1                            | 25             |
| BZX584C36   | B9           | 34.2                            | 36      | 37.8    | 2               | 90                               | 500                              | 1               | 0.1                            | 27             |
| BZX584C39   | C9           | 37.1                            | 39      | 41.0    | 2               | 130                              | 500                              | 1               | 2                              | 30             |

Notes:

- (1) V<sub>ZT</sub> is tested with pulses (20 ms)  
 (2) C:±5%

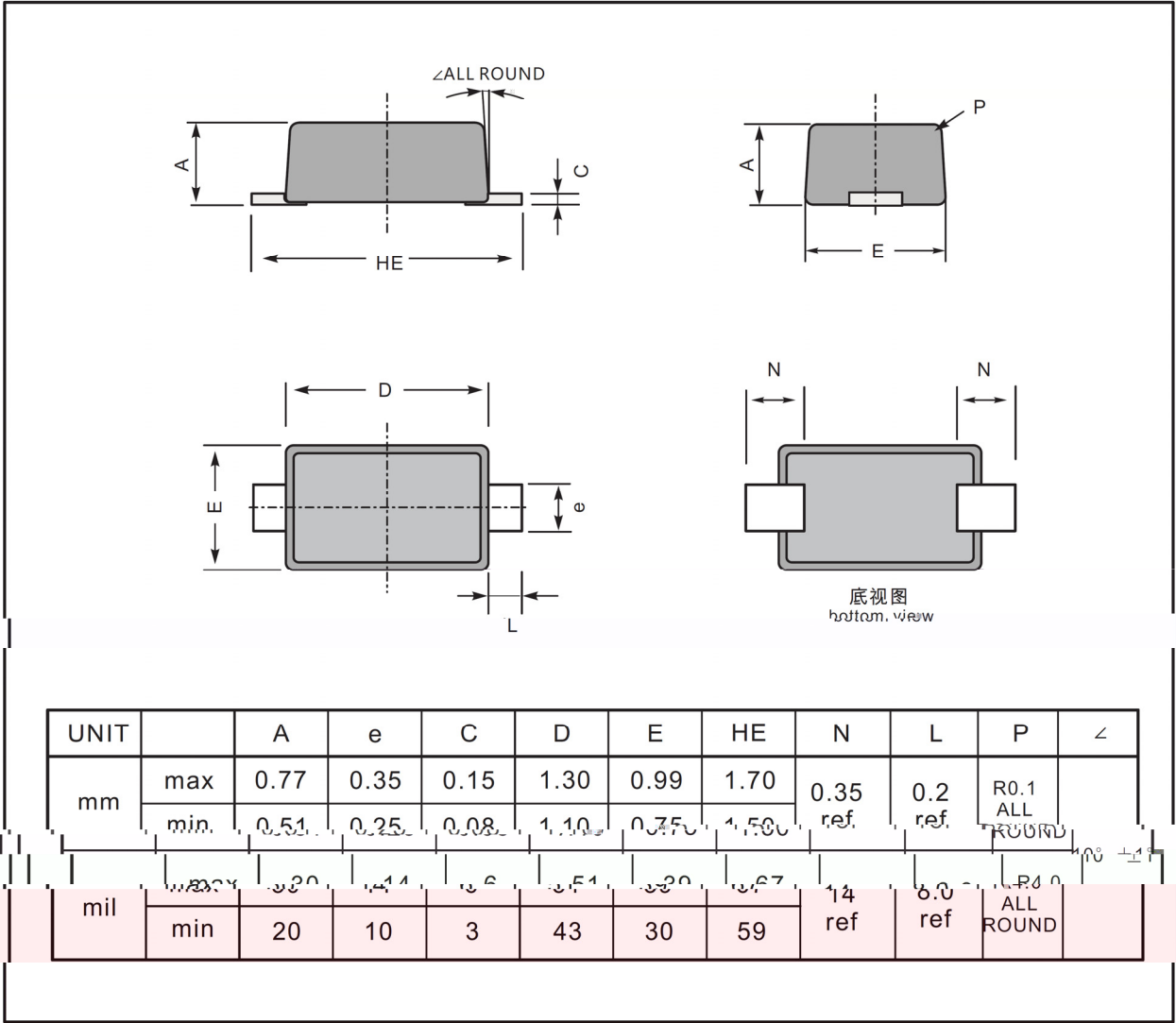
/ Electrical Characteristic Curve

Fig.1 Maximum Continuous Power Derating

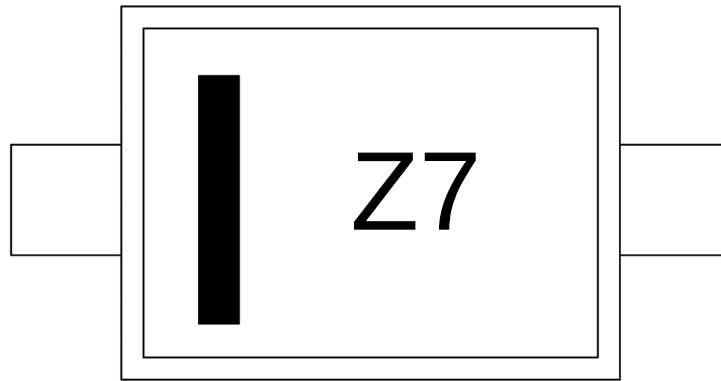


/ Package Dimensions

SOD-523



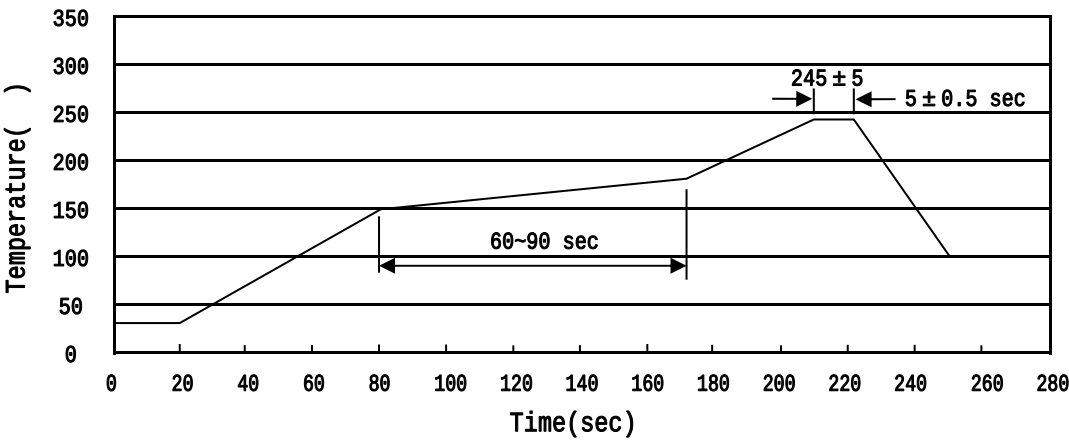
/ Marking Instructions



Note:

Z7: Product Type Code

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



Note:

- 1

150 180

60 90sec;

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

245 5

5 0.5sec;

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

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260 5                      10 1 sec.                      Temp.:260±5                      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-523      | 3,000      | 10              | 30,000          | 6                     | 180,000         | 7" ×8                             | 180×120×180 | 390×385×205 |

/ Notices