



# FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314      FAX: 852-2790 0206

## BZT52C...W

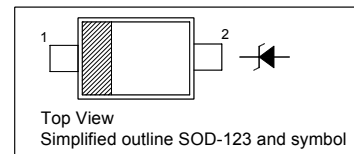
### SILICON PLANAR ZENER DIODES

#### Features

- Ideally suited for automated assembly processes
- Total power dissipation: max. 500 mW

#### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |

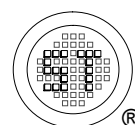


#### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

| Parameter                 | Symbol    | Value         | Unit             |
|---------------------------|-----------|---------------|------------------|
| Power Dissipation         | $P_{tot}$ | 500           | mW               |
| Junction Temperature      | $T_j$     | 150           | $^\circ\text{C}$ |
| Storage Temperature Range | $T_s$     | - 65 to + 150 | $^\circ\text{C}$ |

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

| Parameter                                  | Symbol    | Max. | Unit               |
|--|-----------|------|--------------------|
| Thermal Resistance Junction to Ambient Air | $R_{thA}$ | 340  | $^\circ\text{C/W}$ |
| Forward Voltage<br>at $I_F = 10\text{ mA}$ | $V_F$     | 0.9  | V                  |



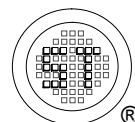
Dated : 09/11/2007

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**BZT52C...W****Characteristics at T<sub>a</sub> = 25 °C**

| Type       | Marking Code | Zener Voltage Range <sup>1)</sup> |                       |                          | Dynamic Impedance           |                             |                          | Reverse Leakage Current     |                        |
|------------|--------------|-----------------------------------|-----------------------|--------------------------|-----------------------------|-----------------------------|--------------------------|-----------------------------|------------------------|
|            |              | V <sub>znom</sub><br>V            | I <sub>ZT</sub><br>mA | for V <sub>ZT</sub><br>V | Z <sub>ZT</sub><br>Ω (Max.) | Z <sub>ZK</sub><br>Ω (Max.) | at I <sub>ZK</sub><br>mA | I <sub>R</sub><br>μA (Max.) | at V <sub>R</sub><br>V |
| BZT52C2V4W | MH           | 2.4                               | 5                     | 2.2...2.6                | 100                         | 600                         | 1                        | 50                          | 1                      |
| BZT52C2V7W | MJ           | 2.7                               | 5                     | 2.5...2.9                | 100                         | 600                         | 1                        | 20                          | 1                      |
| BZT52C3V0W | MK           | 3.0                               | 5                     | 2.8...3.2                | 95                          | 600                         | 1                        | 10                          | 1                      |
| BZT52C3V3W | MM           | 3.3                               | 5                     | 3.1...3.5                | 95                          | 600                         | 1                        | 5                           | 1                      |
| BZT52C3V6W | MN           | 3.6                               | 5                     | 3.4...3.8                | 90                          | 600                         | 1                        | 5                           | 1                      |
| BZT52C3V9W | MP           | 3.9                               | 5                     | 3.7...4.1                | 90                          | 600                         | 1                        | 3                           | 1                      |
| BZT52C4V3W | MR           | 4.3                               | 5                     | 4...4.6                  | 90                          | 600                         | 1                        | 3                           | 1                      |
| BZT52C4V7W | MX           | 4.7                               | 5                     | 4.4...5                  | 80                          | 500                         | 1                        | 3                           | 2                      |
| BZT52C5V1W | MY           | 5.1                               | 5                     | 4.8...5.4                | 60                          | 480                         | 1                        | 2                           | 2                      |
| BZT52C5V6W | MZ           | 5.6                               | 5                     | 5.2...6                  | 40                          | 400                         | 1                        | 1                           | 2                      |
| BZT52C6V2W | NA           | 6.2                               | 5                     | 5.8...6.6                | 10                          | 150                         | 1                        | 3                           | 4                      |
| BZT52C6V8W | NB           | 6.8                               | 5                     | 6.4...7.2                | 15                          | 80                          | 1                        | 2                           | 4                      |
| BZT52C7V5W | NC           | 7.5                               | 5                     | 7...7.9                  | 15                          | 80                          | 1                        | 1                           | 5                      |
| BZT52C8V2W | ND           | 8.2                               | 5                     | 7.7...8.7                | 15                          | 80                          | 1                        | 0.7                         | 5                      |
| BZT52C9V1W | NE           | 9.1                               | 5                     | 8.5...9.6                | 15                          | 100                         | 1                        | 0.5                         | 6                      |
| BZT52C10W  | NF           | 10                                | 5                     | 9.4...10.6               | 20                          | 150                         | 1                        | 0.2                         | 7                      |
| BZT52C11W  | NH           | 11                                | 5                     | 10.4...11.6              | 20                          | 150                         | 1                        | 0.1                         | 8                      |
| BZT52C12W  | NJ           | 12                                | 5                     | 11.4...12.7              | 25                          | 150                         | 1                        | 0.1                         | 8                      |
| BZT52C13W  | NK           | 13                                | 5                     | 12.4...14.1              | 30                          | 170                         | 1                        | 0.1                         | 8                      |
| BZT52C15W  | NM           | 15                                | 5                     | 13.8...15.6              | 30                          | 200                         | 1                        | 0.1                         | 10.5                   |
| BZT52C16W  | NN           | 16                                | 5                     | 15.3...17.1              | 40                          | 200                         | 1                        | 0.1                         | 11.2                   |
| BZT52C18W  | NP           | 18                                | 5                     | 16.8...19.1              | 45                          | 225                         | 1                        | 0.1                         | 12.6                   |
| BZT52C20W  | NR           | 20                                | 5                     | 18.8...21.2              | 55                          | 225                         | 1                        | 0.1                         | 14                     |
| BZT52C22W  | NX           | 22                                | 5                     | 20.8...23.3              | 55                          | 250                         | 1                        | 0.1                         | 15.4                   |
| BZT52C24W  | NY           | 24                                | 5                     | 22.8...25.6              | 70                          | 250                         | 1                        | 0.1                         | 16.8                   |
| BZT52C27W  | NZ           | 27                                | 2                     | 25.1...28.9              | 80                          | 300                         | 0.5                      | 0.1                         | 18.9                   |
| BZT52C30W  | PA           | 30                                | 2                     | 28...32                  | 80                          | 300                         | 0.5                      | 0.1                         | 21                     |
| BZT52C33W  | PB           | 33                                | 2                     | 31...35                  | 80                          | 325                         | 0.5                      | 0.1                         | 23.1                   |
| BZT52C36W  | PC           | 36                                | 2                     | 34...38                  | 90                          | 350                         | 0.5                      | 0.1                         | 25.2                   |
| BZT52C39W  | PD           | 39                                | 2                     | 37...41                  | 130                         | 350                         | 0.5                      | 0.1                         | 27.3                   |

<sup>1)</sup> V<sub>Z</sub> is tested with pulses (20 ms).



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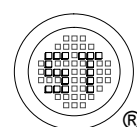
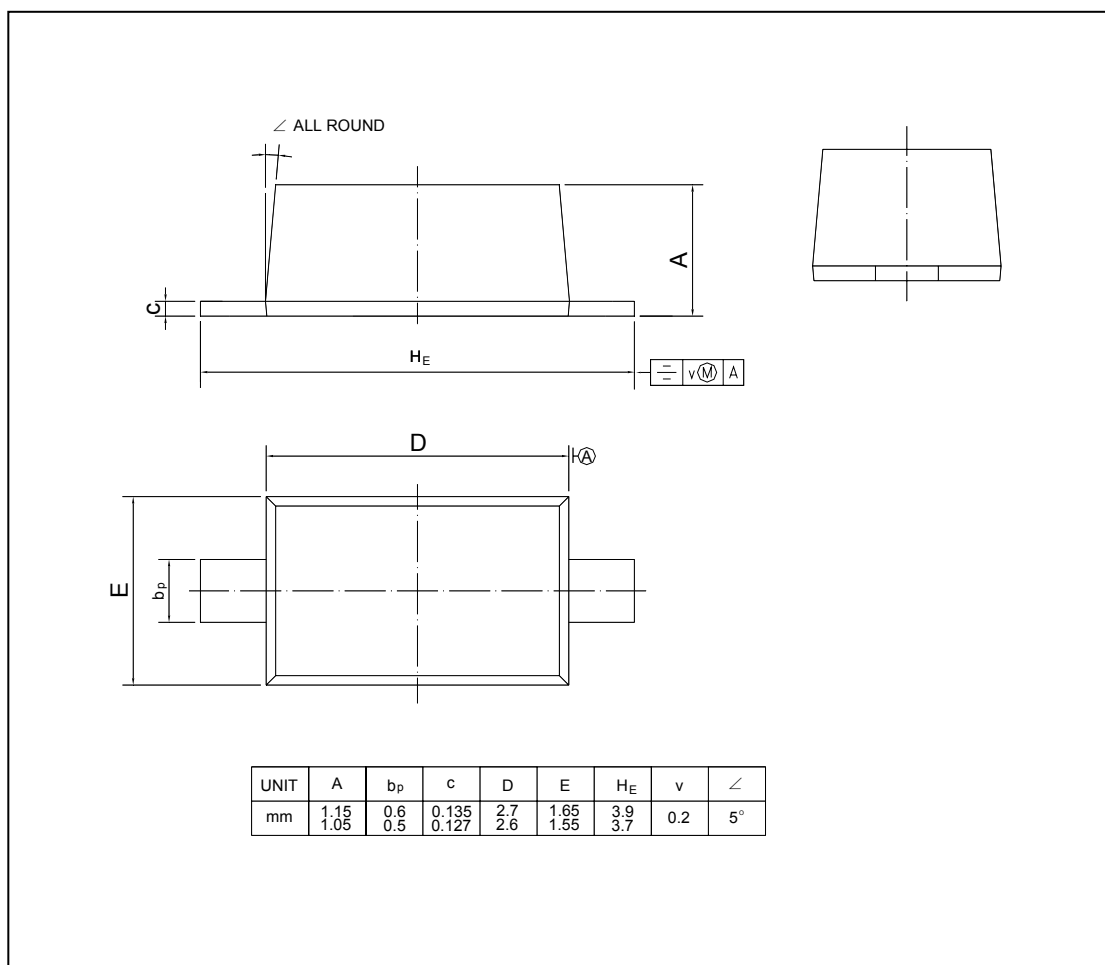
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**BZT52C...W**

**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

SOD-123



Dated : 09/11/2007