

## BZT52-C5V1FN2B SERIES

### SURFACE MOUNT SILICON ZENER DIODES

**VOLTAGE** 5.1-6.8 Volts **POWER** 250mWatts

**DFN0603**

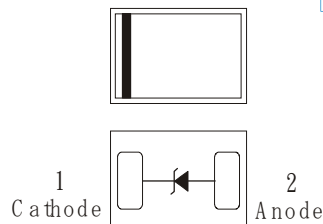
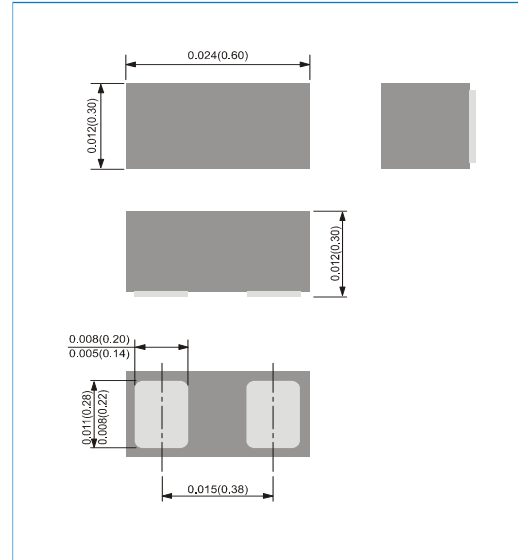
Unit : inch(mm)

#### FEATURES

- Planar Die construction
- 250mW Power Dissipation
- Zener Voltages from 5.1~6.8V
- Ideally Suited for Automated Assembly Processes
- In compliance with EU RoHS 2002/95/EC directives

#### MECHANICAL DATA

- Case: DFN0603, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00001 ounces, 0.00028grams
- Mounting Position: Any
- Polarity: Color band denotes cathode end



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

| Parameter                                                    | Symbol           | Value       | Units |
|--------------------------------------------------------------|------------------|-------------|-------|
| Power Dissipation                                            | P <sub>D</sub>   | 250         | mW    |
| Thermal resistance Junction to Ambient ( Note 1)             | R <sub>θJA</sub> | 500         | °C/W  |
| Operating Junction Temperature and Storage Temperature Range | T <sub>J</sub>   | -55 to +150 | °C    |

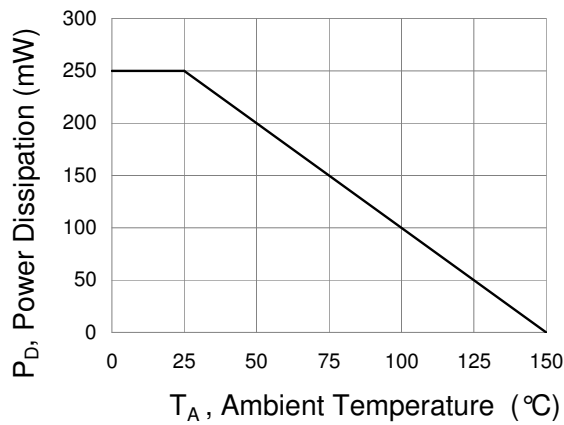
| Part Number             | Nominal Zener Voltage            |        |        | Max. Zener Impedance              |     |                                   |      | Max Reverse Leakage Current     |   | Marking Code |
|-------------------------|----------------------------------|--------|--------|-----------------------------------|-----|-----------------------------------|------|---------------------------------|---|--------------|
|                         | V <sub>Z</sub> @ I <sub>ZT</sub> |        |        | Z <sub>ZT</sub> @ I <sub>ZT</sub> |     | Z <sub>ZK</sub> @ I <sub>ZK</sub> |      | I <sub>R</sub> @ V <sub>R</sub> |   |              |
|                         | Nom. V                           | Min. V | Max. V | Ω                                 | mA  | Ω                                 | mA   | μA                              | V |              |
| 250 mWatts Zener Diodes |                                  |        |        |                                   |     |                                   |      |                                 |   |              |
| BZT52-C5V1FN2B          | 5.1                              | 4.84   | 5.37   | 60                                | 5.0 | 400                               | 1.00 | 0.8                             | 2 | 9            |
| BZT52-C6V8FN2B          | 6.8                              | 6.47   | 7.14   | 8                                 | 5.0 | 80                                | 1.00 | 0.1                             | 3 | C            |

#### NOTES:

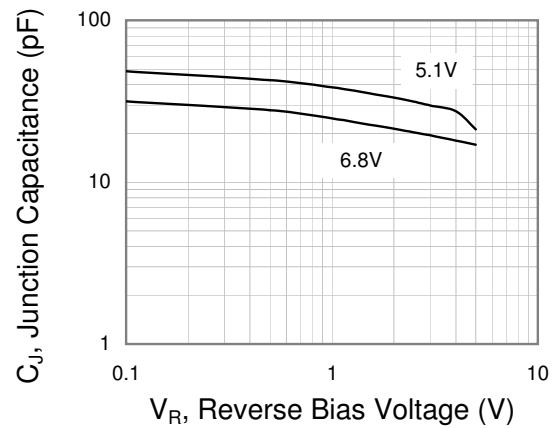
1. Mounted on 48 cm<sup>2</sup> FR-4 PCB board.

## BZT52-C5V1FN2B SERIES

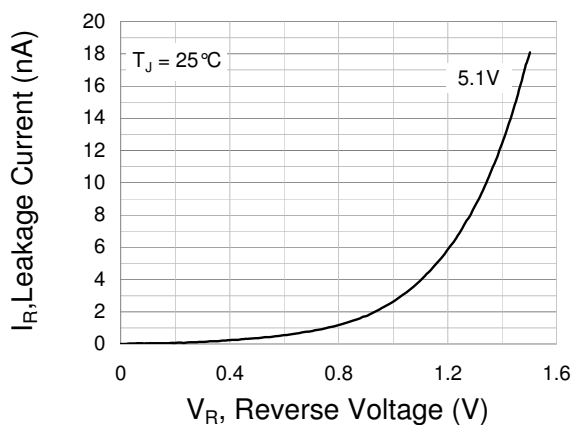
### RATING AND CHARACTERISTIC CURVES



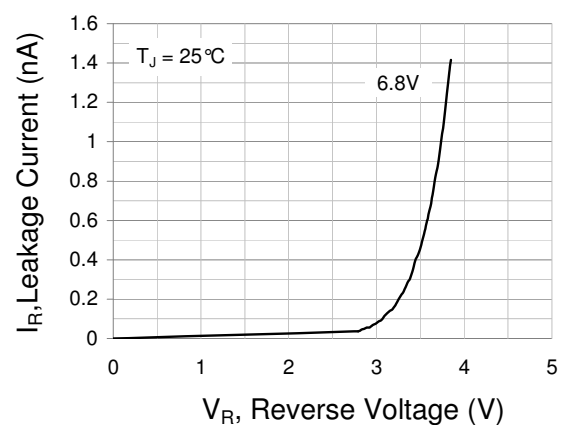
**Fig.1 Power Derating Curve**



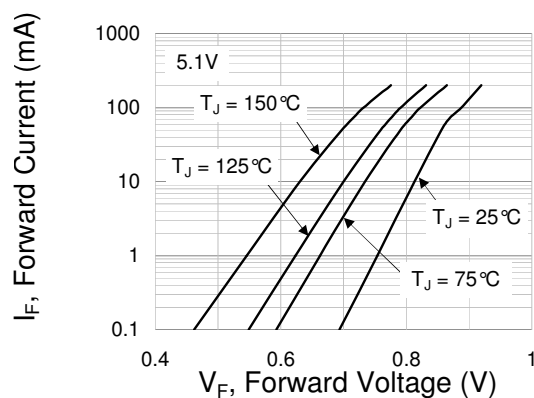
**Fig.2 Typical Junction Capacitance**



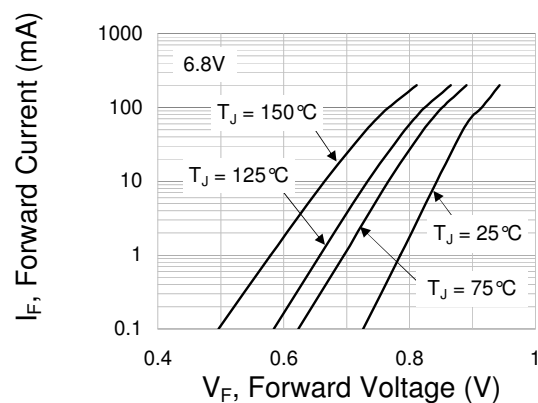
**Fig.3 Typical Leakage Characteristics**



**Fig.4 Typical Leakage Characteristics**



**Fig.5 Typical Forward Characteristics**



**Fig.6 Typical Forward Characteristics**

## BZT52-C5V1FN2B SERIES

### RATING AND CHARACTERISTIC CURVES

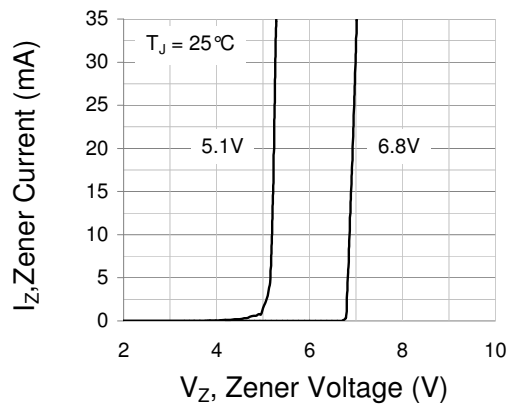


Fig.7 Typical Zener Characteristics

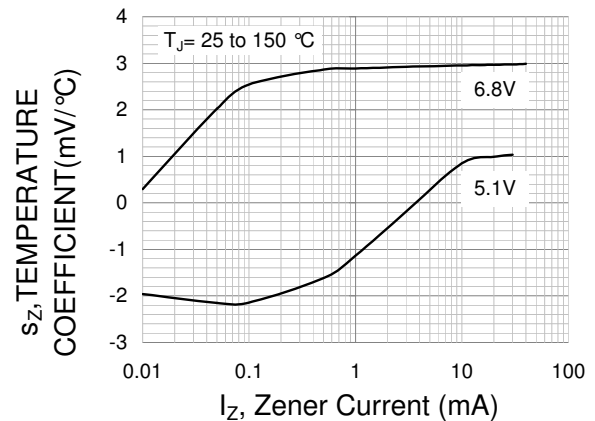


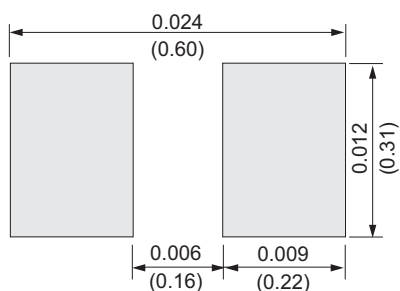
Fig.8 Temperature coefficient as a function of working current; typical values.

## BZT52-C5V1FN2B SERIES

### MOUNTING PAD LAYOUT

DFN0603

Unit : inch(mm)



### ORDER INFORMATION

- Packing information  
T/R - per 7" plastic Reel

### LEGAL STATEMENT

#### Copyright PanJit International, Inc 2011

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.