



BZT52-C5V1FN2B SERIES

SURFACE MOUNT SILICON ZENER DIODES

| | | | |
|----------------|---------------------|--------------|-----------------|
| VOLTAGE | 5.1-6.8 Volt | POWER | 250mWatt |
|----------------|---------------------|--------------|-----------------|

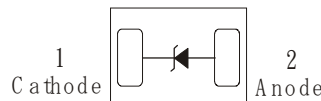
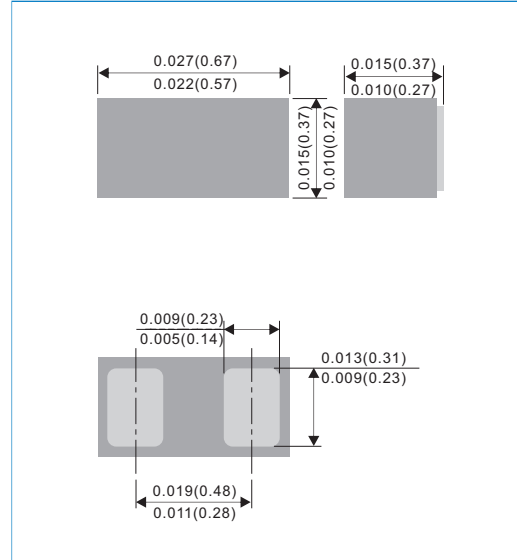
DFN0603 Unit : inch(mm)

FEATURES

- Planar Die construction
- 250mW Power Dissipation
- Zener Voltages from 5.1~6.8V
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS 2.0

MECHANICAL DATA

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



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

| Parameter | Symbol | Value | Units |
|--|------------------|-------------|-------|
| Power Dissipation | P _D | 250 | mW |
| Thermal resistance Junction to Ambient (Note 1) | R _{θJA} | 500 | °C/W |
| Operating Junction Temperature and Storage Temperature Range | T _J | -55 to +150 | °C |

| Part Number | Nominal Zener Voltage | | | Max. Zener Impedance | | | | Max Reverse Leakage Current | | Marking Code |
|-------------------------|----------------------------------|--------|--------|-----------------------------------|-----|-----------------------------------|------|---------------------------------|---|--------------|
| | V _Z @ I _{ZT} | | | Z _{zT} @ I _{ZT} | | Z _{zK} @ I _{ZK} | | I _R @ V _R | | |
| | 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 cm² FR-4 PCB board.



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RATING AND CHARACTERISTIC CURVES

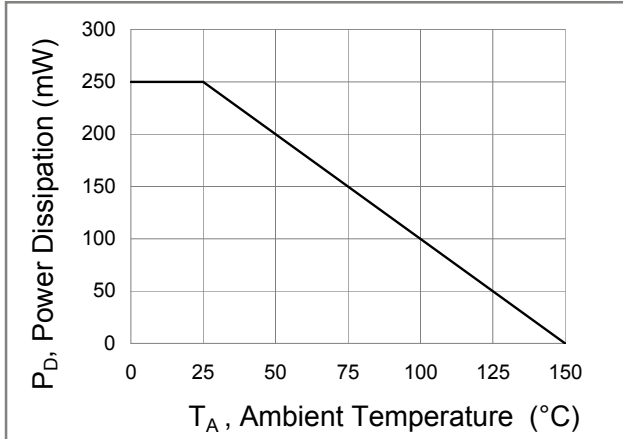


Fig.1 Power Derating Curve

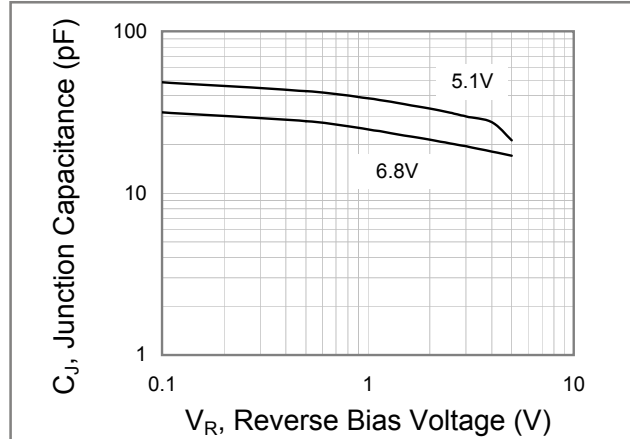


Fig.2 Typical Junction Capacitance

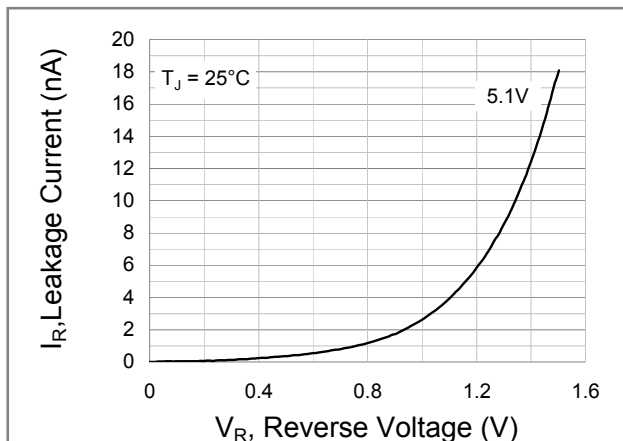


Fig.3 Typical Leakage Characteristics

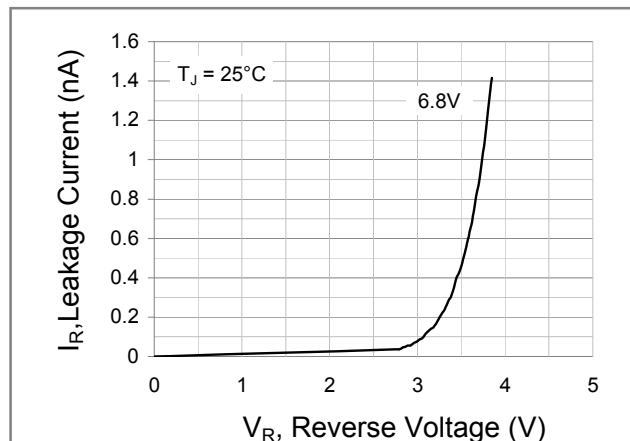


Fig.4 Typical Leakage Characteristics

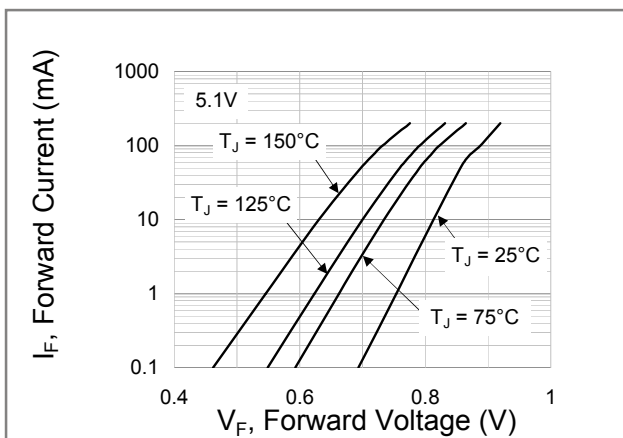


Fig.5 Typical Forward Characteristics

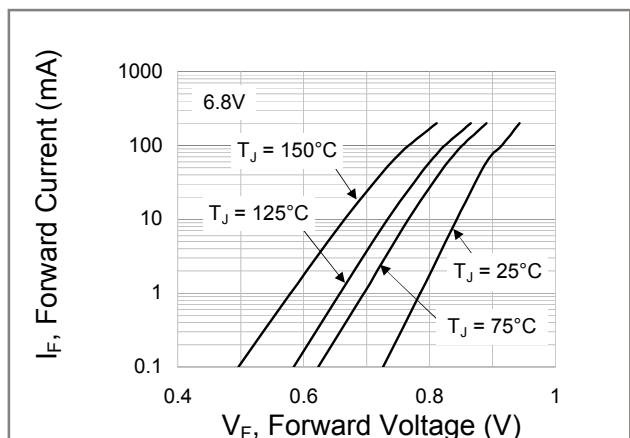


Fig.6 Typical Forward Characteristics



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RATING AND CHARACTERISTIC CURVES

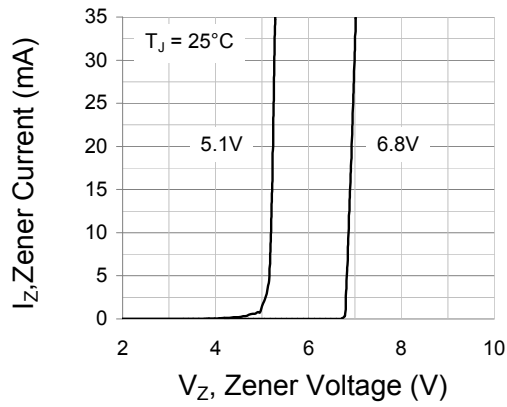


Fig.7 Typical Zener Characteristics

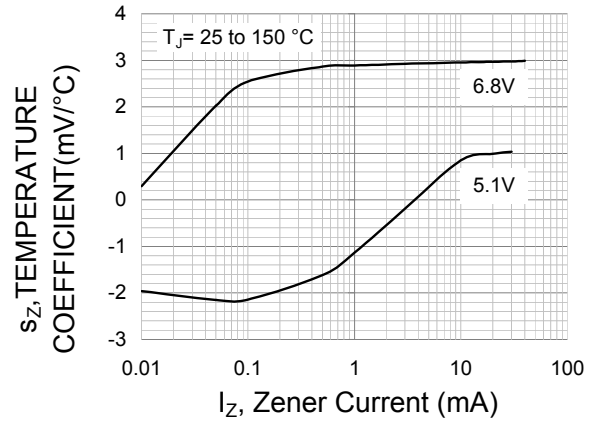
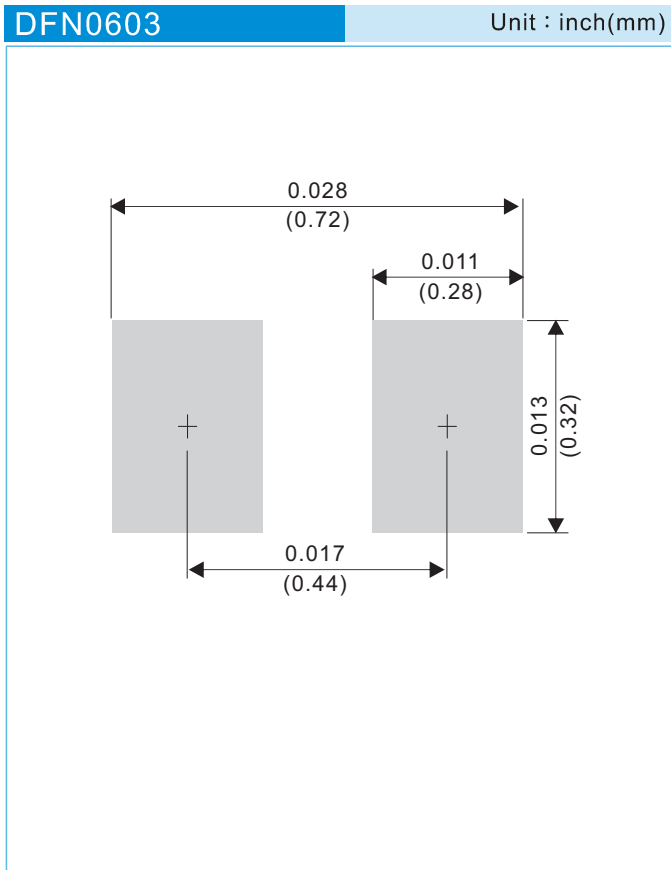


Fig.8 Temperature coefficient as a function of working current; typical values.



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 10K per 7" plastic Reel



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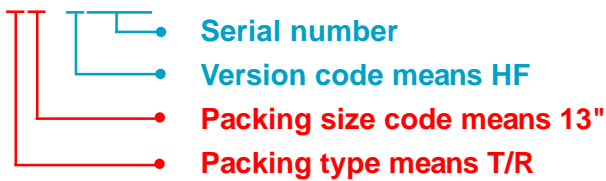
Part No_packing code_Version

BZT52-C5V1FN2B_R1_00001

For example :

RB500V-40_R2_00001

Part No.



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



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