

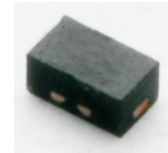
CZRZ3V3B-HF Thru. CZRZ6V8B-HF

Voltage: 3.3 to 6.8 Volts

Power: 100mW

RoHS Device

Halogen Free



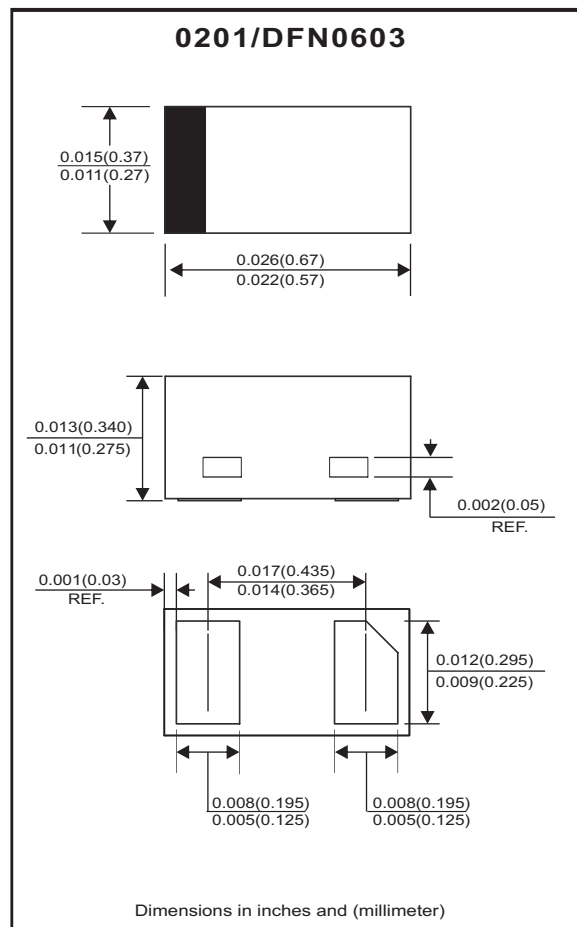
Features

- 100mW Power Dissipation.
- Voltages : 3.3V, 4.7V, 5.1V, 5.6V, 6.8V
- High reliability.
- Designed for mounting on small surface.
- Extremely thin/leadless package.

Mechanical data

- Case: 0201/DFN0603 package, molded plastic.
- Terminals: Gold plated, Solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Mounting position: Any

Circuit diagram



Maximum Rating (at TA=25°C unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|-----------|-------------|------|
| Maximum Forward Voltage Drop at $I_F = 10 \text{ mA}$ | V_F | 0.9 | V |
| Maximum Power Dissipation at 25 °C | P_D | 100 | mW |
| Junction Temperature | T_J | 150 | °C |
| Operating Temperature Range | T_{opr} | -55 to +125 | °C |
| Storage Temperature Range | T_{stg} | -55 to +150 | °C |

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

| Part Number | Zener Voltage | | | | Operating resistance | | Rising Operating Resistance | | Leakage Current | |
|-------------|---------------|------|------|------------|----------------------|---------------|-----------------------------|---------------|-----------------|-------|
| | V_Z (Volts) | | | @ I_{ZT} | Z_{ZT} (Ohm) | | Z_{ZK} (Ohm) | | $I_R@V_R$ | |
| | Min | Nom | Max | mA | Max | I_{ZT} (mA) | Max | I_{ZK} (mA) | μA | Volts |
| CZRZ3V3B-HF | 3.16 | 3.30 | 3.53 | 5 | 100 | 5 | 1000 | 1.0 | 20 | 1.0 |
| CZRZ4V7B-HF | 4.42 | 4.70 | 4.90 | 5 | 100 | 5 | 800 | 0.5 | 2.0 | 1.0 |
| CZRZ5V1B-HF | 4.84 | 5.10 | 5.37 | 5 | 80 | 5 | 500 | 0.5 | 2.0 | 1.5 |
| CZRZ5V6B-HF | 5.31 | 5.60 | 5.92 | 5 | 60 | 5 | 200 | 0.5 | 1.0 | 2.5 |
| CZRZ6V8B-HF | 6.47 | 6.80 | 7.14 | 5 | 40 | 5 | 60 | 0.5 | 0.5 | 3.5 |

RATING AND CHARACTERISTIC CURVES

Fig.1 - Forward Characteristics

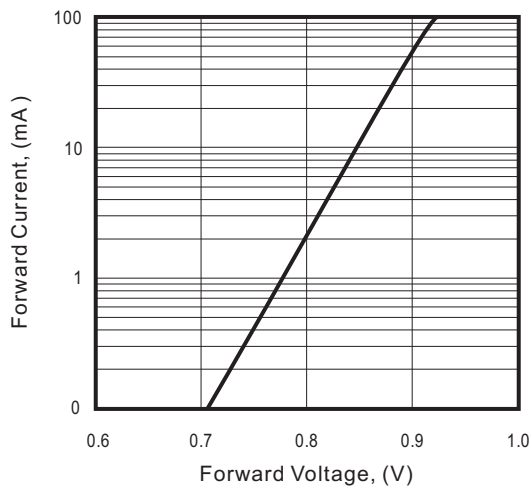


Fig.2 - Zener Breakdown Characteristics

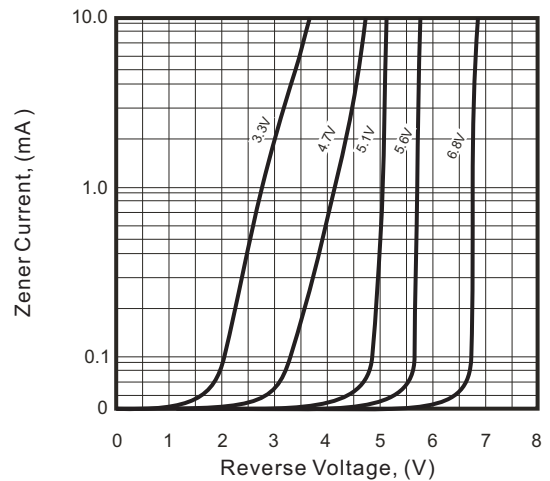
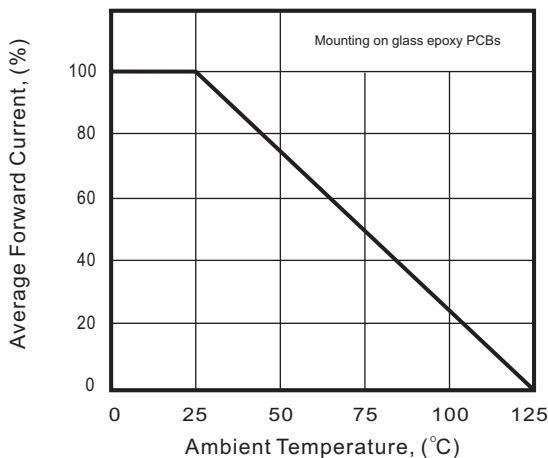
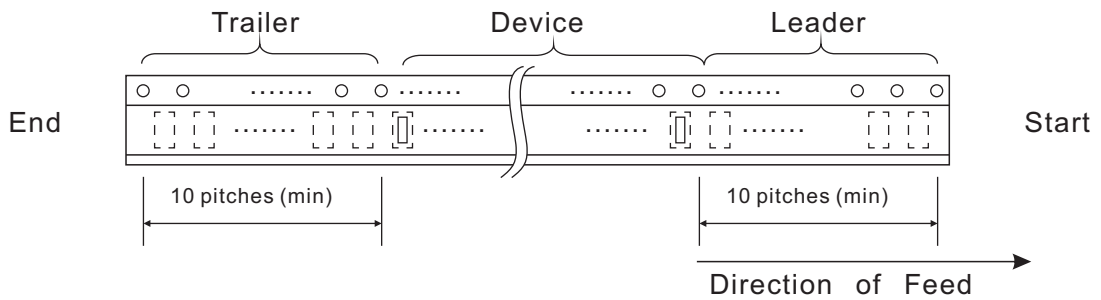
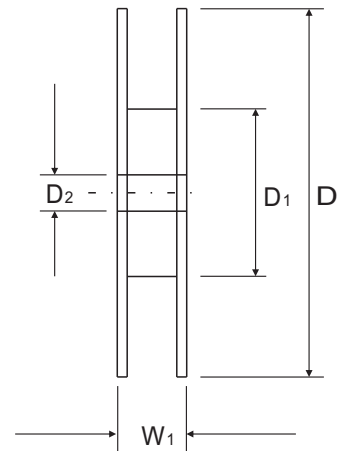
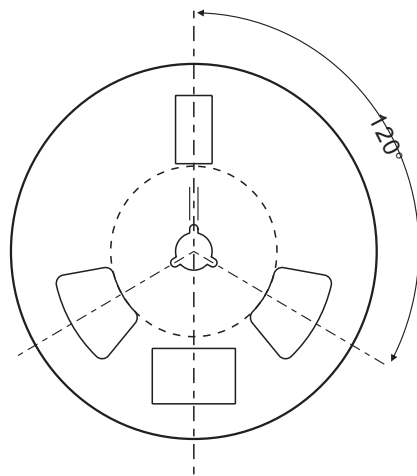
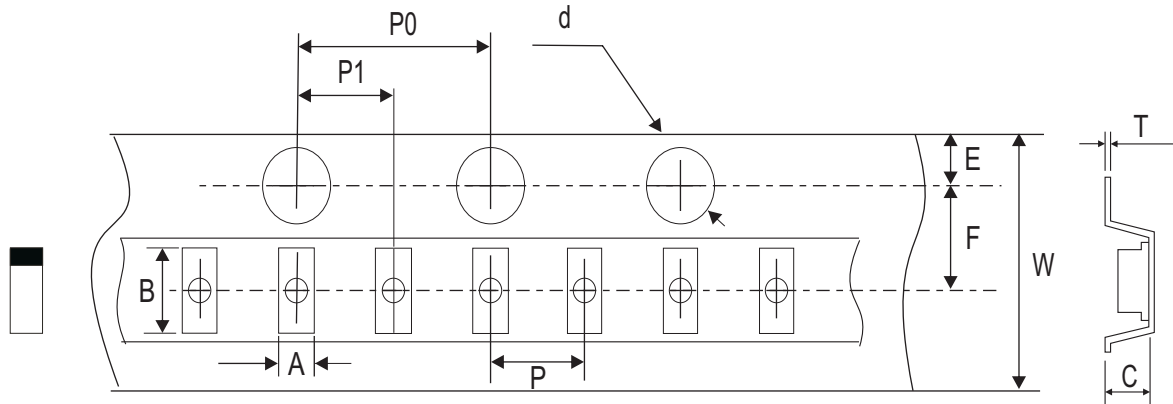


Fig.3 - Current Derating Curve



Reel Taping Specification



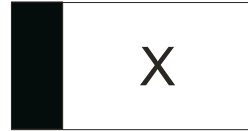
| 0201 (DFN0603) | SYMBOL | A | B | C | d | D | D ₁ | D ₂ |
|-------------------|--------|-------------------|-------------|-------------|-------------|-------------|----------------|----------------|
| | (mm) | 0.39+0.03/-0.02 | 0.72±0.03 | 0.36±0.03 | 1.50+0.10 | 178±1.00 | 54.4±0.40 | 13.0±0.20 |
| | (inch) | 0.015+0.001/0.001 | 0.028±0.001 | 0.014±0.001 | 0.059+0.004 | 7.008±0.039 | 2.142±0.016 | 0.512±0.008 |

| 0201 (DFN0603) | SYMBOL | E | F | P | P ₀ | P ₁ | T | W | W ₁ |
|-------------------|--------|-------------|-------------|-------------|----------------|----------------|-------------|-------------|----------------|
| | (mm) | 1.75±0.10 | 3.50±0.05 | 2.00±0.05 | 4.00±0.05 | 2.00±0.05 | 0.23±0.05 | 8.00±0.10 | 12.30±0.10 |
| | (inch) | 0.069±0.004 | 0.138±0.002 | 0.079±0.004 | 0.157±0.004 | 0.079±0.004 | 0.009±0.002 | 0.315±0.008 | 0.484±0.004 |

SMD Zener Diode

Marking Code

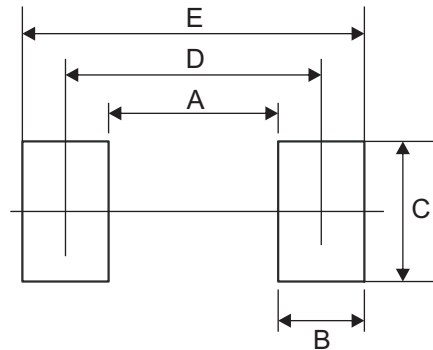
| Part Number | Marking Code |
|-------------|--------------|
| CZRZ3V3B-HF | E |
| CZRZ4V7B-HF | I |
| CZRZ5V1B-HF | J |
| CZRZ5V6B-HF | K |
| CZRZ6V8B-HF | L |



X = Product type marking code

Suggested PAD Layout

| SIZE | 0201(DFN0603) | |
|------|---------------|--------|
| | (mm) | (inch) |
| A | 0.16 | 0.006 |
| B | 0.24 | 0.009 |
| C | 0.34 | 0.013 |
| D | 0.40 | 0.016 |
| E | 0.64 | 0.025 |



Standard Packaging

| Case Type | Qty Per Reel | Reel Size |
|--------------|--------------|-----------|
| | (Pcs) | (inch) |
| 0201/DFN0603 | 10,000 | 7 |

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