



AZ23C2V7 THRU AZ23C51

Dual Surface Mount Zener Diode



Voltage Range
2.7 to 51 Volts
300m Watts Power Dissipation

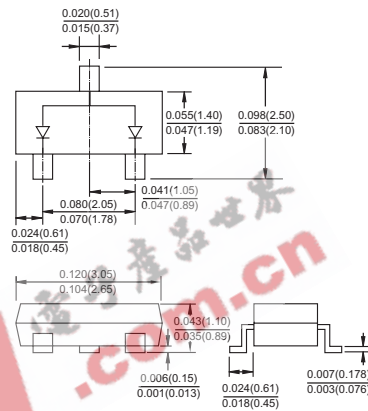
Features

- ✧ Dual zeners in common anode configuration
- ✧ 300 mW power dissipation rating
- ✧ Ideally suited for automated insertion
- ✧ ΔV_z for both diodes in one case is $\leq 5\%$
- ✧ Common cathode style available see DZ series

Mechanical Data

- ✧ Case: SOT-23, Molded plastic
- ✧ Terminals: Solderable per MIL-STD-202, Method 208
- ✧ Polarity: See diagram
- ✧ Marking: Marking Code (see table on Page 2)
- ✧ Mounting position: Any
- ✧ Weight: 0.008 grams (approx.)

SOT-23



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

| Type Number | Symbol | Value | Units |
|-----------------------------------------------------|-----------------|-------------|-------|
| Power Dissipation (Note 1) | P_d | 300 | mW |
| Thermal Resistance Junction to Ambient Air (Note 1) | $R_{\theta JA}$ | 420 | K/W |
| Operating and Storage Temperature Range | T_J, T_{STG} | -65 to +150 | °C |

- Notes: 1. Device on Fiberglass Substrate.
2. Tested with IZT Current pulses. Pulse width = 5ms.

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

| Device (Note 1) | Device Marking Code | Zener Voltage Range @ I _z t = 5.0mA V _z (Volts) (Notes 2) | Maximum Zener Impedance | | Typical Temperature Coefficient | Min Reverse Voltage @ I _R = 0.1uA V _R (Volts) |
|--------------------|---------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------|
| | | | Z _{zT} @ I _{zT} = 5.0mA | Z _{zK} @ I _{zK} = 1.0mA | | |
| | | | Ohms | Ohms | T _c (% / °C) | |
| AZ23C2V7 | D1 | 2.5-2.9 | 83 | 500 | -0.065 | - |
| AZ23C3V0 | D2 | 2.8-3.2 | 95 | 500 | -0.060 | - |
| AZ23C3V3 | D3 | 3.1-3.5 | 95 | 500 | -0.055 | - |
| AZ23C3V6 | D4 | 3.4-3.8 | 95 | 500 | -0.055 | - |
| AZ23C3V9 | D5 | 3.7-4.1 | 95 | 500 | -0.050 | - |
| AZ23C4V3 | D6 | 4.0-4.6 | 95 | 500 | -0.035 | - |
| AZ23C4V7 | D7 | 4.4-5.0 | 78 | 500 | -0.015 | - |
| AZ23C5V1 | D8 | 4.8-5.4 | 60 | 480 | +0.005 | 0.8 |
| AZ23C5V6 | D9 | 5.2-6.0 | 40 | 400 | +0.020 | 1.0 |
| AZ23C6V2 | D10 | 5.8-6.6 | 10 | 200 | +0.030 | 2.0 |
| AZ23C6V8 | D11 | 6.4-7.2 | 8.0 | 150 | +0.045 | 3.0 |
| AZ23C7V5 | D12 | 7.0-7.9 | 7.0 | 50 | +0.050 | 5.0 |
| AZ23C8V2 | D13 | 7.7-8.7 | 7.0 | 50 | +0.055 | 6.0 |
| AZ23C9V1 | D14 | 8.5-9.6 | 10 | 50 | +0.065 | 7.0 |
| AZ23C10 | D15 | 9.4-10.6 | 15 | 70 | +0.065 | 7.5 |
| AZ23C11 | D16 | 10.4-11.6 | 20 | 70 | +0.070 | 8.5 |
| AZ23C12 | D17 | 11.4-12.7 | 20 | 90 | +0.075 | 9.0 |
| AZ23C13 | D18 | 12.4-14.1 | 25 | 110 | +0.080 | 10.0 |
| AZ23C15 | D19 | 13.8-15.6 | 30 | 110 | +0.080 | 11.0 |
| AZ23C16 | D20 | 15.30-17.1 | 40 | 170 | +0.090 | 12.0 |
| AZ23C18 | D21 | 16.8-19.1 | 50 | 170 | +0.090 | 14.0 |
| AZ23C20 | D22 | 18.8-21.2 | 50 | 220 | +0.090 | 15.0 |
| AZ23C22 | D23 | 20.8-23.3 | 55 | 220 | +0.090 | 17.0 |
| AZ23C24 | D24 | 22.8-25.6 | 80 | 220 | +0.090 | 18.0 |
| AZ23C27 | D25 | 25.1-28.9 | 80 | 250 | +0.090 | 20.0 |
| AZ23C30 | D26 | 28-32 | 80 | 250 | +0.090 | 22.5 |
| AZ23C33 | D27 | 31-35 | 80 | 250 | +0.090 | 25.0 |
| AZ23C36 | D28 | 34-39 | 90 | 250 | +0.090 | 27.0 |
| AZ23C39 | D29 | 37-41 | 90 | 300 | +0.110 | 29.0 |
| AZ23C43 | D30 | 40-46 | 100 | 700 | +0.110 | 32.0 |
| AZ23C47 | D31 | 44-50 | 100 | 750 | +0.110 | 35.0 |
| AZ23C51 | D32 | 48-54 | 100 | 750 | +0.110 | 38.0 |

Notes: 1. Device on fiberglass substrate.

2. Tested with I_zT current pulses. Pulse width = 5.0ms.