



# AZ23C2V7 THRU AZ23C51

## Features

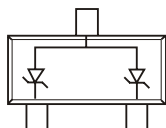
- Dual zeners in common anode configuration.
- 300mW power dissipation rating.
- Ideally suited for automatic insertion.
- $\Delta v_z$  for both diodes in one case is  $\leq 5\%$ .
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

**300 mW  
Zener Diode  
2.7 to 51 Volts**

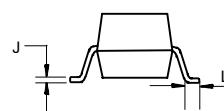
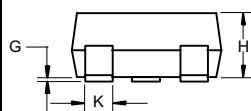
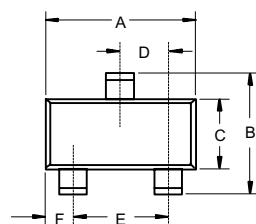
## Absolute Maximum Ratings

| Symbol     | Parameter                                   | Rating      | Unit          |
|------------|---------------------------------------------|-------------|---------------|
| $P_D$      | Power dissipation                           | 300         | mW            |
| $R_{thJA}$ | Thermal Resistance, Junction to Ambient Air | 417         | $^{\circ}C/W$ |
| $T_{STG}$  | Storage Temperature Range                   | -65 to +175 | $^{\circ}C$   |

\*Pin Configuration - Top View



## SOT-23



| DIMENSIONS |        |       |      |      |      |
|------------|--------|-------|------|------|------|
| DIM        | INCHES |       | MM   |      | NOTE |
|            | MIN    | MAX   | MIN  | MAX  |      |
| A          | .110   | .120  | 2.80 | 3.04 |      |
| B          | .083   | .104  | 2.10 | 2.64 |      |
| C          | .047   | .055  | 1.20 | 1.40 |      |
| D          | .035   | .041  | .89  | 1.03 |      |
| E          | .070   | .081  | 1.78 | 2.05 |      |
| F          | .018   | .024  | .45  | .60  |      |
| G          | .0005  | .0039 | .013 | .100 |      |
| H          | .035   | .044  | .89  | 1.12 |      |
| J          | .003   | .007  | .085 | .180 |      |
| K          | .015   | .020  | .37  | .51  |      |
| L          | .007   | .020  | .20  | .50  |      |

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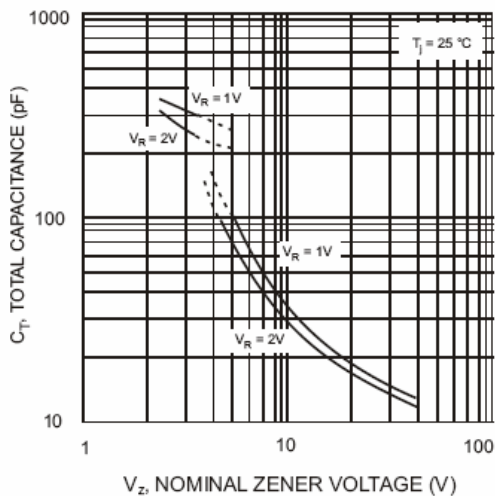
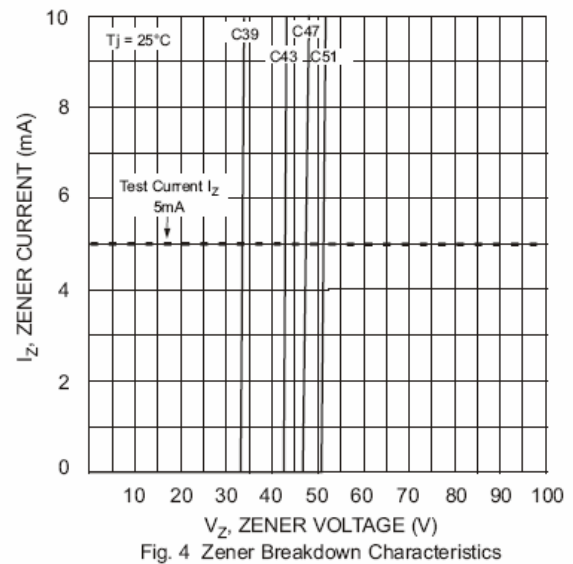
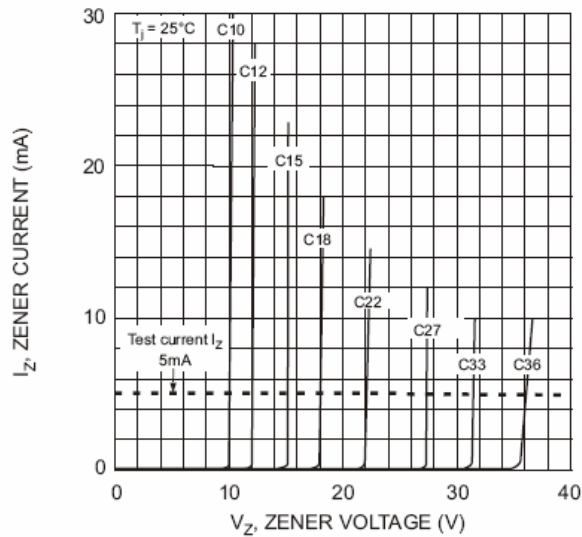
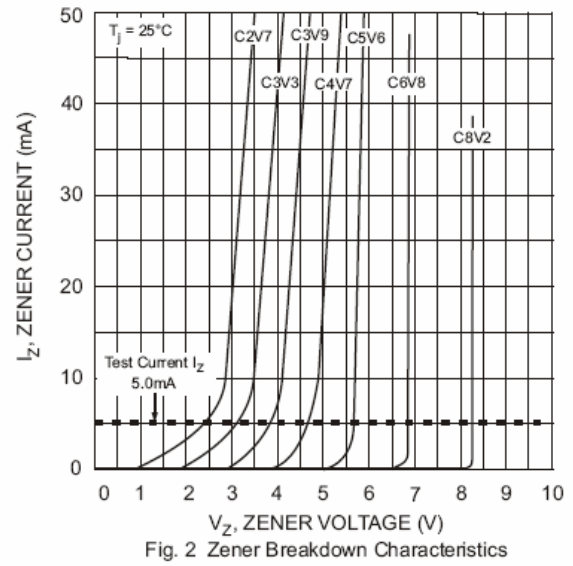
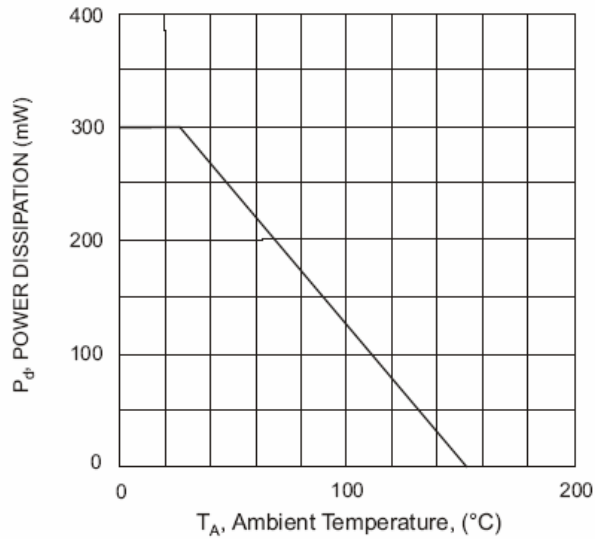
**Electrical Characteristics** @ T<sub>A</sub> = 25°C unless otherwise specified

| Type Number | Marking Code | Zener voltage Range (note1) | Maximum zener Impedance (note 2)        |                                         | Typical Temperature coefficient<br>Tc (%/°C) | Min reverse Voltage (note1) |
|-------------|--------------|-----------------------------|-----------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------|
|             |              | @ I <sub>ZT</sub> =5.0mA    | Z <sub>YT</sub> @I <sub>ZT</sub> =5.0mA | Z <sub>ZK</sub> @I <sub>ZK</sub> =1.0mA |                                              | @I <sub>R</sub> =0.1uA      |
|             |              | V <sub>Z</sub> (volts )     | Ohms                                    | Ohms                                    |                                              | V <sub>R</sub> (volts)      |
| AZ23C2V7    | KD1          | 2.5-2.9                     | 83                                      | 500                                     | -0.065                                       | —                           |
| AZ23C3V0    | KD2          | 2.8-3.2                     | 95                                      | 500                                     | -0.060                                       | —                           |
| AZ23C3V3    | KD3          | 3.1-3.5                     | 95                                      | 500                                     | -0.055                                       | —                           |
| AZ23C3V6    | KD4          | 3.4-3.8                     | 95                                      | 500                                     | -0.055                                       | —                           |
| AZ23C3V9    | KD5          | 3.7-4.1                     | 95                                      | 500                                     | -0.050                                       | —                           |
| AZ23C4V3    | KD6          | 4.0-4.6                     | 95                                      | 500                                     | -0.035                                       | —                           |
| AZ23C4V7    | KD7          | 4.4-5.0                     | 78                                      | 500                                     | -0.015                                       | —                           |
| AZ23C5V1    | KD8          | 4.8-5.4                     | 60                                      | 480                                     | +0.005                                       | 0.8                         |
| AZ23C5V6    | KD9          | 5.2-6.0                     | 40                                      | 400                                     | +0.020                                       | 1.0                         |
| AZ23C6V2    | KDA          | 5.8-6.6                     | 10                                      | 200                                     | +0.030                                       | 2.0                         |
| AZ23C6V8    | KDB          | 6.4-7.2                     | 8.0                                     | 150                                     | +0.045                                       | 3.0                         |
| AZ23C7V5    | KDC          | 7.0-7.9                     | 7.0                                     | 50                                      | +0.050                                       | 5.0                         |
| AZ23C8V2    | KDD          | 7.7-8.7                     | 7.0                                     | 50                                      | +0.055                                       | 6.0                         |
| AZ23C9V1    | KDE          | 8.5-9.6                     | 10                                      | 50                                      | +0.065                                       | 7.0                         |
| AZ23C10     | KDF          | 9.4-10.6                    | 15                                      | 70                                      | +0.065                                       | 7.5                         |
| AZ23C11     | KDG          | 10.4-11.6                   | 20                                      | 70                                      | +0.070                                       | 8.5                         |
| AZ23C12     | KDH          | 11.4-12.7                   | 20                                      | 90                                      | +0.075                                       | 9.0                         |
| AZ23C13     | KDI          | 12.4-14.1                   | 25                                      | 110                                     | +0.080                                       | 10.0                        |
| AZ23C15     | KDJ          | 13.8-15.6                   | 30                                      | 110                                     | +0.080                                       | 11.0                        |
| AZ23C16     | KDK          | 15.3-17.1                   | 40                                      | 170                                     | +0.090                                       | 12.0                        |
| AZ23C18     | KDL          | 16.8-19.1                   | 50                                      | 170                                     | +0.090                                       | 14.0                        |
| AZ23C20     | KDM          | 18.8-21.2                   | 50                                      | 220                                     | +0.090                                       | 15.0                        |
| AZ23C22     | KDN          | 20.8-23.3                   | 55                                      | 220                                     | +0.090                                       | 17.0                        |
| AZ23C24     | KDO          | 22.8-25.6                   | 80                                      | 220                                     | +0.090                                       | 18.0                        |
| AZ23C27     | KDP          | 25.1-28.9                   | 80                                      | 250                                     | +0.090                                       | 20.0                        |
| AZ23C30     | KDQ          | 28-32                       | 80                                      | 250                                     | +0.090                                       | 22.5                        |
| AZ23C33     | KDR          | 31-35                       | 80                                      | 250                                     | +0.090                                       | 25.0                        |
| AZ23C36     | KDS          | 34-38                       | 90                                      | 250                                     | +0.090                                       | 27.0                        |
| AZ23C39     | KDT          | 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. Short duration test pulse used to minimize self-heating effect.

2. f=1KHz

## AZ23C2V7-AZ23C51



## Ordering Information :

| Device         | Packing               |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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