

SOD-123

Features:

- Planar Die Construction
- 500mW Power Dissipation On Ceramic PCB
- General Purpose, Medium Current
- Ideally Suited For Automated Assembly Processes

Applications:

- Zener diode
- Ultra-small surface mount package

Maximum Ratings:

Ratings at 25°C unless otherwise specified.

| Characteristic | Symbol | Value | Unit |
|---|-----------------|-------------|------|
| Forward voltage at $I_F=10\text{mA}$ | V_F | 0.9 | V |
| Power dissipation | P_D | 500 | mW |
| Thermal resistance, junction to ambient air | $R_{\theta JA}$ | 305 | °C/W |
| Junction and storage temperature range | T_J, T_{stg} | -65 to +150 | °C |

Notes:

Device mounted on ceramic PCB 7.6mm × 9.4mm × 0.87mm with pad areas 25mm².

Short duration test pulse used to minimize self-heating effect.

When provided, otherwise, parts are provided with date code only, and type number identifications appears on reel only.
f = 1kHz.

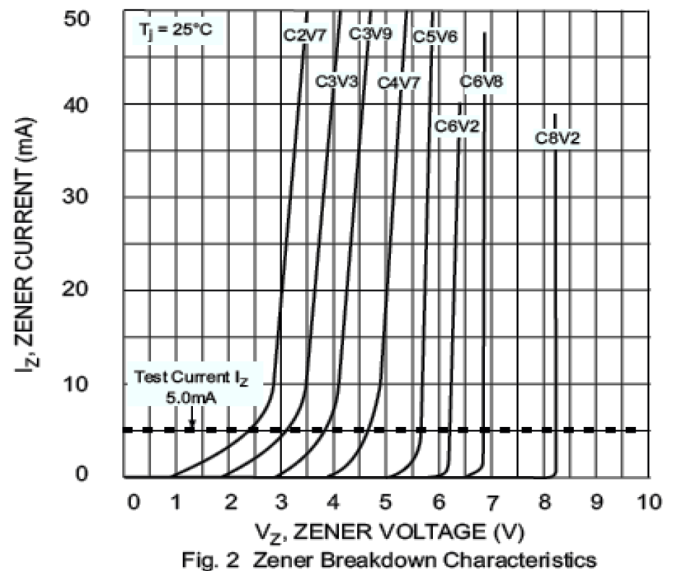
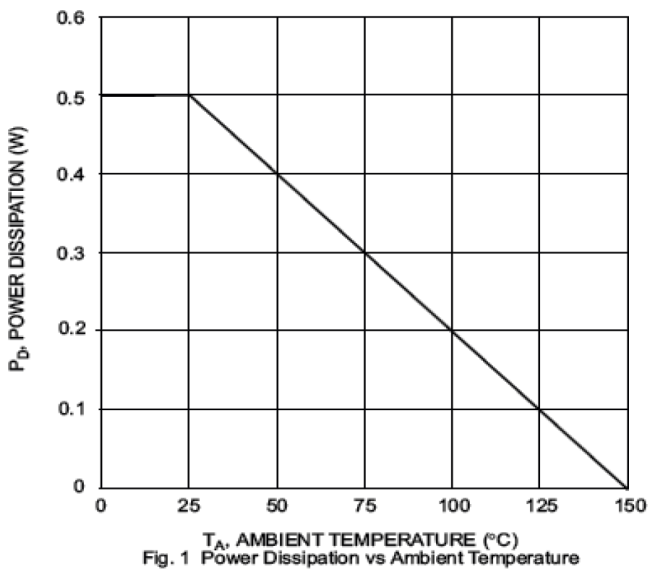
Electrical Characteristics:

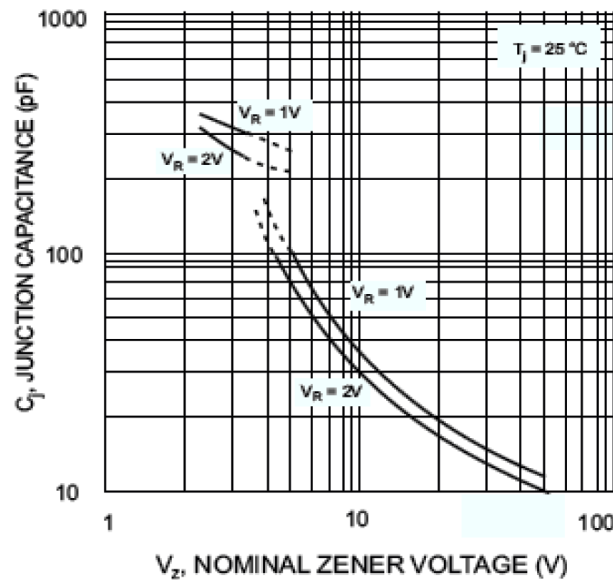
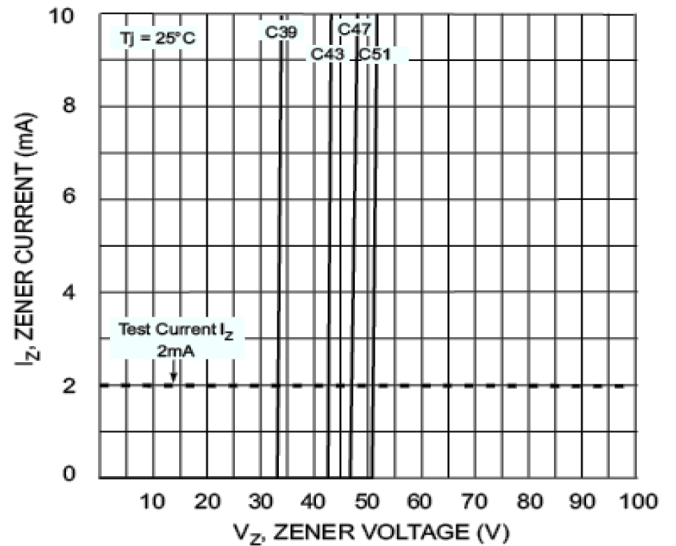
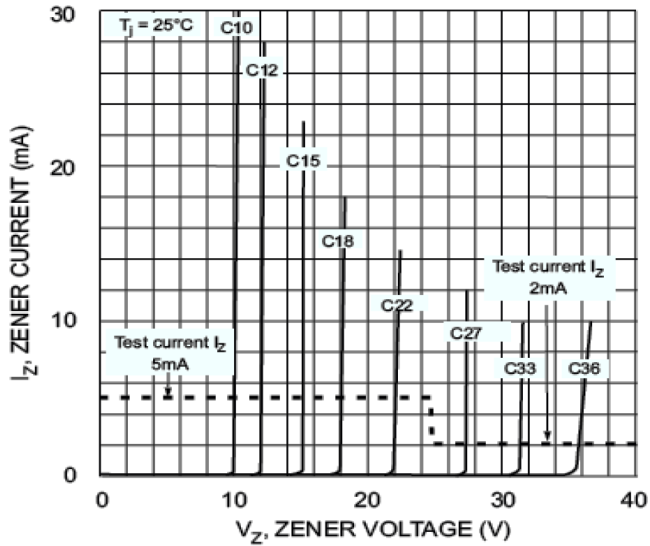
Ratings at 25°C unless otherwise specified.

| Part Number | Marking Code | Zener Voltage Range | | | | Max. Zener Impedance | | | Max. Reverse Current | | Temperature Coefficient of zener voltage @ I _{ZTC} mV/°C | | Test Current I _{ZTC} mA |
|-------------------|--------------|---------------------------------|---------|---------|-----------------|----------------------------------|----------------------------------|-----------------|----------------------|-----------------|---|------|-------------------------------------|
| | | V _Z @I _{ZT} | | | I _{ZT} | Z _{ZT} @I _{ZT} | Z _{ZK} @I _{ZK} | I _{ZK} | I _R | @V _R | Min. | Max. | |
| | | Nom.(V) | Min.(V) | Max.(V) | mA | Ω | mA | μA | V | | | | |
| BZT52C6 V8-7-F | WB | 6.8 | 6.4 | 7.2 | 5 | 15 | 80 | 1 | 2 | 4 | 1.2 | 4.5 | 5 |

Typical Characteristics:

T_A = 25°C unless otherwise specified.

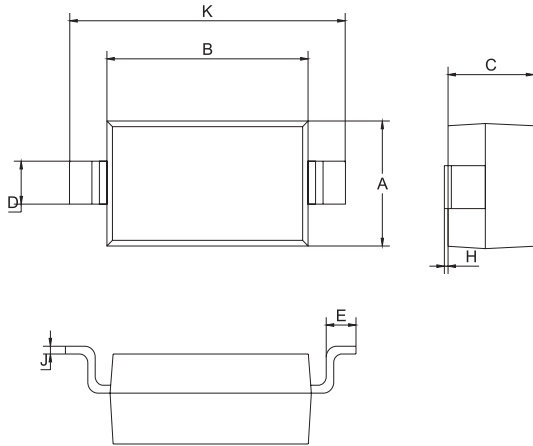




Surface Mount Zener Diode

Package Outline:

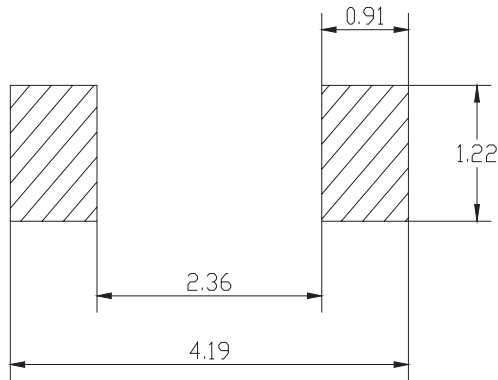
Plastic surface mounted package



| SOD-123 | | |
|---------|-----------|------|
| Dim. | Min. | Max. |
| A | 1.4 | 1.8 |
| B | 2.55 | 2.85 |
| C | 1.15 Typ. | |
| D | 0.5 | 0.6 |
| E | 0.3 | 0.4 |
| H | 0.02 | 0.1 |
| J | 0.1 Typ. | |
| K | 3.55 | 3.85 |

Dimensions : Millimetres

Soldering Footprint:



Dimensions : Millimetres

Package Information:

| Device | Package | Shipping |
|---------------|---------|---------------------|
| BZT52C6V8-7-F | SOD-123 | 3,000 / Tape & Reel |

Part Number Table

| Description | Part Number |
|---------------------------|---------------|
| Surface Mount Zener Diode | BZT52C6V8-7-F |

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