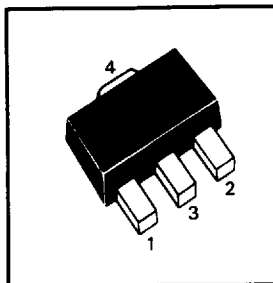
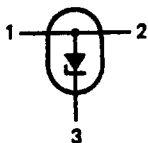


SOT89 SILICON PLANAR VOLTAGE REGULATOR DIODES

BZV49 SERIES C2V7 - C47

PIN CONFIGURATION



ABSOLUTE MAXIMUM RATINGS

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|------------|-------------|------------------|
| Voltage Range | V_Z | 2.7 to 47 | V |
| Nominal Tolerance | C^* | $\pm 5\%$ | % |
| Maximum Forward Current | I_F | 250 | mA |
| Power Dissipation at $T_{amb} = 25^\circ\text{C}$ | P_{TOT} | 1000 | mW |
| Operating and Storage Temperature Range | $t_j:tstg$ | -65 to +150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated)

| Type Number | Zener Voltage V_Z at $I_Z = 5\text{mA}$ | | | Differential Resistance r_z at $I_Z = 5\text{mA}$ Ohms | Temperature Coefficient S_z %/ 100°C | | Reverse Current I_R at V_R μA Volts | | Diode Capacitance $C_{d(pf)}$ $F = 1\text{mHZ}$ $V_R = 0$ |
|-------------|---|------|------|---|---|------|---|----|--|
| | Nom. | Min. | Max. | Max | Min | Max. | Max. | | Max. |
| BZV49 | | | | | | | | | |
| C2V7 | 2.7 | 2.5 | 2.9 | 100 | -3.5 | 0 | 20 | 1 | 450 |
| C3V0 | 3.0 | 2.8 | 3.2 | 100 | -3.5 | 0 | 10 | 1 | 450 |
| C3V3 | 3.3 | 3.1 | 3.5 | 100 | -3.5 | 0 | 5 | 1 | 450 |
| C3V6 | 3.6 | 3.4 | 3.8 | 100 | -3.5 | 0 | 5 | 1 | 450 |
| C3V9 | 3.9 | 3.7 | 4.1 | 100 | -3.5 | 0 | 3 | 1 | 450 |
| C4V3 | 4.3 | 4.0 | 4.6 | 90 | -3.5 | 0 | 3 | 1 | 450 |
| C4V7 | 4.7 | 4.4 | 5.0 | 80 | -3.5 | 0.2 | 3 | 2 | 180 |
| C5V1 | 5.1 | 4.8 | 5.4 | 60 | -2.7 | 1.2 | 2 | 2 | 160 |
| C5V6 | 5.6 | 5.2 | 6.0 | 40 | -2.0 | 2.5 | 1 | 2 | 140 |
| C6V2 | 6.2 | 5.8 | 6.6 | 10 | 0.4 | 3.7 | 3 | 4 | 130 |
| C6V8 | 6.8 | 6.4 | 7.2 | 15 | 1.2 | 4.5 | 2 | 4 | 110 |
| C7V5 | 7.5 | 7.0 | 7.9 | 15 | 2.5 | 5.3 | 1 | 5 | 100 |
| C8V2 | 8.2 | 7.7 | 8.7 | 15 | 3.2 | 6.2 | 0.7 | 5 | 95 |
| C9V1 | 9.1 | 8.5 | 9.6 | 15 | 3.8 | 7.0 | 0.5 | 6 | 90 |
| C10 | 10 | 9.4 | 10.6 | 20 | 4.5 | 8.0 | 0.2 | 7 | 90 |
| C11 | 11 | 10.4 | 11.6 | 20 | 5.4 | 9.0 | 0.1 | 8 | 85 |
| C12 | 12 | 11.4 | 12.7 | 25 | 6.0 | 10.0 | 0.1 | 8 | 85 |
| C13 | 13 | 12.4 | 14.1 | 30 | 7.0 | 11.0 | 0.1 | 9 | 80 |
| C15 | 15 | 13.8 | 15.6 | 30 | 9.2 | 13.0 | 0.05 | 10 | 75 |
| C16 | 16 | 15.3 | 17.1 | 40 | 10.4 | 14.0 | 0.05 | 11 | 75 |
| C18 | 18 | 16.8 | 19.1 | 45 | 12.4 | 16.0 | 0.05 | 13 | 70 |
| C20 | 20 | 18.8 | 21.2 | 55 | 14.4 | 18.0 | 0.05 | 14 | 60 |
| C22 | 22 | 20.8 | 23.3 | 55 | 16.4 | 20.0 | 0.05 | 15 | 60 |
| C24 | 24 | 22.8 | 25.6 | 70 | 18.4 | 22.0 | 0.05 | 17 | 55 |
| | V_Z at $I_Z = 2\text{mA}$ | | | r_z at $I_Z = 2\text{mA}$ | S_z at $I_Z = 2\text{mA}$ | | | | |
| C27 | 27 | 25.1 | 28.9 | 80 | 21.4 | 25.3 | 0.05 | 19 | 50 |
| C30 | 30 | 28 | 32 | 80 | 24.4 | 29.4 | 0.05 | 21 | 50 |
| C33 | 33 | 31 | 35 | 80 | 27.4 | 33.4 | 0.05 | 23 | 45 |
| C36 | 36 | 34 | 38 | 90 | 30.4 | 37.4 | 0.05 | 25 | 45 |
| C39 | 39 | 37 | 41 | 130 | 33.4 | 41.2 | 0.05 | 27 | 45 |
| C43 | 43 | 40 | 46 | 150 | 37.6 | 46.6 | 0.05 | 30 | 40 |
| C47 | 47 | 44 | 50 | 170 | 42.0 | 51.8 | 0.05 | 33 | 40 |

BZV49 SERIES C2V7 - C47

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated)

| Type Number | Zener Voltage V_Z at $I_Z = 1mA$ Volts | Differential Resistance r_Z at $I_Z = 1$ Ohms |
|-------------|--|---|
| BZV49 | Min. | Max. |
| C2V7 | 1.9 | 600 |
| C3V0 | 2.1 | 600 |
| C3V3 | 2.4 | 600 |
| C3V6 | 2.7 | 600 |
| C3V9 | 3.0 | 600 |
| C4V3 | 3.3 | 600 |
| C4V7 | 3.7 | 500 |
| C5V1 | 4.2 | 480 |
| C5V6 | 4.8 | 400 |
| C6V2 | 5.6 | 150 |
| C6V8 | 6.3 | 80 |
| C7V5 | 6.9 | 80 |
| C8V2 | 7.6 | 80 |
| C9V1 | 8.4 | 100 |
| C10 | 9.3 | 150 |
| C11 | 10.2 | 150 |
| C12 | 11.2 | 150 |
| C13 | 12.3 | 170 |
| C15 | 13.7 | 200 |
| C16 | 15.2 | 200 |
| C18 | 16.7 | 225 |
| C20 | 18.7 | 225 |
| C22 | 20.7 | 250 |
| C24 | 22.7 | 250 |
| C27 | V_Z at $I_Z = 0.5mA$ | r_Z at $I_Z = 0.5mA$ |
| C30 | 25.0 | 300 |
| C33 | 27.8 | 300 |
| C36 | 30.8 | 325 |
| C39 | 33.8 | 350 |
| C43 | 36.7 | 350 |
| C47 | 39.7 | 375 |
| | 43.7 | 375 |

Devices are identified by a code on the body of the device

| | | | |
|-------|------------|------------|-----------|
| BZV49 | C2V7 - 2Y7 | C7V5 - 7Y5 | C22 - 22Y |
| | C3V0 - 3Y0 | C8V2 - 8Y2 | C24 - 24Y |
| | C3V3 - 3Y3 | C9V1 - 9Y1 | C27 - 27Y |
| | C3V6 - 3Y6 | C10 - 10Y | C30 - 30Y |
| | C3V9 - 3Y9 | C11 - 11Y | C33 - 33Y |
| | C4V3 - 4Y3 | C12 - 12Y | C36 - 36Y |
| | C4V7 - 4Y7 | C13 - 13Y | C39 - 39Y |
| | C5V1 - 5Y1 | C15 - 15Y | C43 - 43Y |
| | C5V6 - 5Y6 | C16 - 16Y | C47 - 47Y |
| | C6V2 - 6Y2 | C18 - 18Y | |
| | C6V8 - 6Y8 | C20 - 20Y | |