**CMPZDA2V4 THRU CMPZDA47V**

**SURFACE MOUNT**
**DUAL, COMMON ANODE**
**SILICON ZENER DIODES**
**2.4 VOLTS THRU 47 VOLTS**
**350mW**




**SOT-23 CASE**

Central Semiconductor Corp.

www.centralsemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPZDA2V4 Series silicon dual zener diode is a high quality voltage regulator, connected in a common anode configuration, for use in industrial, commercial, entertainment and computer applications.

**MARKING CODE: SEE MARKING CODES ON ELECTRICAL CHARACTERISTICS TABLE**

| **MAXIMUM RATINGS:** ($T_A$=25°C) | **SYMBOL** | | **UNITS** |
|---|---|---|---|
| Power Dissipation | $P_D$ | 350 | mW |
| Operating and Storage Junction Temperature | $T_J$, $T_{stg}$ | -65 to +175 | °C |
| Thermal Resistance | $\Theta_{JA}$ | 429 | °C/W |

**ELECTRICAL CHARACTERISTICS:** ($T_A$=25°C) $V_F$=0.9V MAX @ $I_F$=10mA (for all types)

| TYPE | ZENER VOLTAGE $V_Z$ @ $I_{ZT}$ | | TEST CURRENT | MAXIMUM ZENER IMPEDANCE | | | MAXIMUM REVERSE CURRENT | | MAXIMUM ZENER CURRENT | MAXIMUM ZENER VOLTAGE TEMP. COEFF. | MARKING CODE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MIN | MAX | $I_{ZT}$ | $Z_{ZT}$ @ $I_{ZT}$ | $Z_{ZK}$ @ $I_{ZK}$ | | $I_R$ @ $V_R$ | | $I_{ZM}$ | $\Theta V_Z$ | |
| | V | V | mA | Ω | Ω | mA | μA | V | mA | % / °C | |
| **CMPZDA2V4** | 2.2 | 2.6 | 5.0 | 100 | 600 | 1.0 | 50 | 1.0 | 63 | -0.06 | WW3 |
| **CMPZDA2V7** | 2.5 | 2.9 | 5.0 | 100 | 600 | 1.0 | 20 | 1.0 | 57 | -0.06 | WW4 |
| **CMPZDA3V0** | 2.8 | 3.2 | 5.0 | 95 | 600 | 1.0 | 10 | 1.0 | 54 | -0.06 | WW5 |
| **CMPZDA3V3** | 3.1 | 3.5 | 5.0 | 95 | 600 | 1.0 | 5.0 | 1.0 | 47 | -0.06 | WW6 |
| **CMPZDA3V6** | 3.4 | 3.8 | 5.0 | 95 | 600 | 1.0 | 2.0 | 1.0 | 45 | -0.06 | WW7 |
| **CMPZDA3V9** | 3.7 | 4.1 | 5.0 | 90 | 600 | 1.0 | 2.0 | 1.0 | 43 | -0.06 | WW8 |
| **CMPZDA4V3** | 4.0 | 4.6 | 5.0 | 90 | 600 | 1.0 | 1.0 | 1.0 | 40 | -0.05 | WW9 |
| **CMPZDA4V7** | 4.4 | 5.0 | 5.0 | 80 | 500 | 1.0 | 3.0 | 2.0 | 38 | -0.03 | ZZ1 |
| **CMPZDA5V1** | 4.8 | 5.4 | 5.0 | 60 | 480 | 1.0 | 2.0 | 2.0 | 35 | 0.02 | ZZ2 |
| **CMPZDA5V6** | 5.2 | 6.0 | 5.0 | 40 | 400 | 1.0 | 1.0 | 2.0 | 32 | 0.03 | ZZ3 |
| **CMPZDA6V2** | 5.8 | 6.6 | 5.0 | 10 | 150 | 1.0 | 3.0 | 4.0 | 28 | 0.04 | ZZ4 |
| **CMPZDA6V8** | 6.5 | 7.2 | 5.0 | 15 | 80 | 1.0 | 2.0 | 4.0 | 25 | 0.05 | ZZ5 |
| **CMPZDA7V5** | 7.0 | 7.9 | 5.0 | 15 | 80 | 1.0 | 1.0 | 5.0 | 23 | 0.05 | ZZ6 |
| **CMPZDA8V2** | 7.7 | 8.7 | 5.0 | 15 | 80 | 1.0 | 0.7 | 5.0 | 21 | 0.06 | ZZ7 |
| **CMPZDA9V1** | 8.5 | 9.6 | 5.0 | 15 | 100 | 1.0 | 0.5 | 6.0 | 18 | 0.06 | ZZ8 |
| **CMPZDA10V** | 9.4 | 10.6 | 5.0 | 20 | 150 | 1.0 | 0.2 | 7.0 | 16 | 0.07 | ZZ9 |
| **CMPZDA11V** | 10.4 | 11.6 | 5.0 | 20 | 150 | 1.0 | 0.1 | 8.0 | 15 | 0.07 | YY1 |
| **CMPZDA12V** | 11.4 | 12.7 | 5.0 | 25 | 150 | 1.0 | 0.1 | 8.0 | 13 | 0.07 | YY2 |
| **CMPZDA13V** | 12.4 | 14.1 | 5.0 | 30 | 170 | 1.0 | 0.1 | 8.0 | 12 | 0.08 | YY3 |
| **CMPZDA15V** | 13.8 | 15.6 | 5.0 | 30 | 200 | 1.0 | 0.05 | 10.5 | 11 | 0.08 | YY4 |
| **CMPZDA16V** | 15.3 | 17.1 | 5.0 | 40 | 200 | 1.0 | 0.05 | 11.2 | 10 | 0.08 | YY5 |
| **CMPZDA18V** | 16.8 | 19.1 | 5.0 | 45 | 225 | 1.0 | 0.05 | 12.6 | 9.2 | 0.08 | YY6 |
| **CMPZDA20V** | 18.8 | 21.2 | 5.0 | 55 | 225 | 1.0 | 0.05 | 14.0 | 8.3 | 0.08 | YY7 |
| **CMPZDA22V** | 20.8 | 23.3 | 5.0 | 55 | 250 | 1.0 | 0.05 | 15.4 | 7.6 | 0.09 | YY8 |

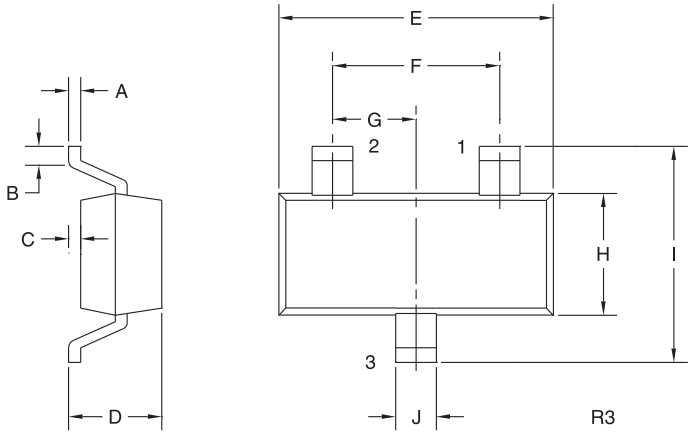
**CMPZDA2V4 THRU CMPZDA47V**

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**DUAL, COMMON ANODE**
**SILICON ZENER DIODES**
**2.4 VOLTS THRU 47 VOLTS**
**350mW**

**ELECTRICAL CHARACTERISTICS - Continued:** ($T_A$=25°C) $V_F$=0.9V MAX @ $I_F$=10mA (for all types)

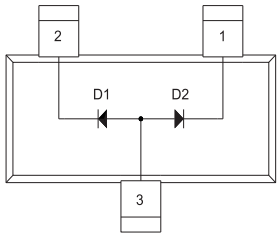
| TYPE | ZENER VOLTAGE $V_Z$ @ $I_{ZT}$ | | TEST CURRENT | MAXIMUM ZENER IMPEDANCE | | | MAXIMUM REVERSE CURRENT | | MAXIMUM ZENER CURRENT | MAXIMUM ZENER VOLTAGE TEMP. COEFF. | MARKING CODE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MIN | MAX | $I_{ZT}$ | $Z_{ZT}$ @ $I_{ZT}$ | $Z_{ZK}$ @ | $I_{ZK}$ | $I_R$ @ | $V_R$ | $I_{ZM}$ | $\Theta V_Z$ | |
| | V | V | mA | Ω | Ω | mA | μA | V | mA | % / °C | |
| **CMPZDA24V** | 22.8 | 25.6 | 5.0 | 70 | 250 | 1.0 | 0.05 | 16.8 | 7.0 | 0.09 | YY9 |
| **CMPZDA27V** | 25.1 | 28.9 | 2.0 | 80 | 300 | 0.5 | 0.05 | 18.9 | 6.2 | 0.09 | W10 |
| **CMPZDA30V** | 28.0 | 32.0 | 2.0 | 80 | 300 | 0.5 | 0.05 | 21.0 | 5.6 | 0.09 | W11 |
| **CMPZDA33V** | 31.0 | 35.0 | 2.0 | 80 | 325 | 0.5 | 0.05 | 23.1 | 5.0 | 0.09 | W12 |
| **CMPZDA36V** | 34.0 | 38.0 | 2.0 | 90 | 350 | 0.5 | 0.05 | 25.2 | 4.6 | 0.09 | W13 |
| **CMPZDA39V** | 37.0 | 41.0 | 2.0 | 130 | 350 | 0.5 | 0.05 | 27.3 | 4.3 | 0.09 | W14 |
| **CMPZDA43V** | 40.0 | 46.0 | 2.0 | 150 | 375 | 0.5 | 0.05 | 30.1 | 3.9 | 0.10 | W15 |
| **CMPZDA47V** | 44.0 | 50.0 | 2.0 | 170 | 375 | 0.5 | 0.05 | 32.9 | 3.5 | 0.10 | W16 |

## SOT-23 CASE - MECHANICAL OUTLINE




| DIMENSIONS | | | | |
|---|---|---|---|---|
| | INCHES | | MILLIMETERS | |
| SYMBOL | MIN | MAX | MIN | MAX |
| A | 0.003 | 0.007 | 0.08 | 0.18 |
| B | 0.006 | - | 0.15 | - |
| C | - | 0.005 | - | 0.13 |
| D | 0.035 | 0.043 | 0.89 | 1.09 |
| E | 0.110 | 0.120 | 2.80 | 3.05 |
| F | 0.075 | | 1.90 | |
| G | 0.037 | | 0.95 | |
| H | 0.047 | 0.055 | 1.19 | 1.40 |
| I | 0.083 | 0.098 | 2.10 | 2.49 |
| J | 0.014 | 0.020 | 0.35 | 0.50 |

SOT-23 (REV: R3)




**LEAD CODE:**
1) Cathode D2
2) Cathode D1
3) Anode D1, D2

**MARKING CODE:**
**SEE MARKING CODES ON ELECTRICAL CHARACTERISTICS TABLE**

R8 (3-February 2010)