

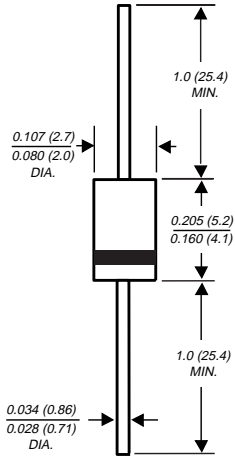
Z4KE100 THRU Z4KE200A

GLASS PASSIVATED ZENER

Zener Voltage - 100 to 200 Volts

Steady State Power - 1.5 Watts

DO-204AL



FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Low Zener impedance
- ◆ Low regulation factor
- ◆ Glass passivated junction
- ◆ High temperature soldering guaranteed: 260°C/10 seconds 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



MECHANICAL DATA

Case: JEDEC DO-204AL molded plastic over passivated junction

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes positive end (cathode)

Mounting Position: Any

Weight: 0.012 ounce, 0.3 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

OPERATING JUNCTION AND STORAGE TEMPERATURE RANGE: T_J, T_{STG} : -55°C to +150°C

| TYPE | ZENER VOLTAGE at 5.0mA | | MAXIMUM ZENER DYNAMIC IMPEDANCE | | | | MAXIMUM DC REVERSE LEAKAGE CURRENT AT V_R | | | MAXIMUM INSTANTANEOUS FORWARD VOLTAGE at 0.50A | MAXIMUM CONTINUOUS REGULATOR CURRENT ⁽¹⁾ |
|----------|------------------------|-----|---------------------------------|-----------------|---------------|-----------------|---|--------------------------------|-------------------------------|--|---|
| | V_Z (Volts) | | I_{ZT} (mA) | Z_{ZT} (Ohms) | I_{ZK} (mA) | Z_{ZK} (Ohms) | V_R (Volts) | $I_R @ 25^\circ C$ (μA) | $I_R 100^\circ C$ (μA) | V_{FM} (Volts) | I_{ZM} (μA) |
| | MIN | MAX | | | | | | | | | |
| Z4KE100 | 90 | 110 | 5.0 | 500 | 0.25 | 5000 | 72.0 | 0.5 | 100.0 | 1.0 | 15.0 |
| Z4KE100A | 95 | 105 | 5.0 | 500 | 0.25 | 5000 | 76.0 | 0.5 | 100.0 | 1.0 | 15.0 |
| Z4KE110 | 99 | 121 | 5.0 | 600 | 0.25 | 5000 | 79.2 | 0.5 | 100.0 | 1.0 | 13.0 |
| Z4KE110A | 104 | 116 | 5.0 | 600 | 0.25 | 5000 | 83.2 | 0.5 | 100.0 | 1.0 | 13.0 |
| Z4KE120 | 108 | 132 | 5.0 | 700 | 0.25 | 5000 | 86.4 | 0.5 | 100.0 | 1.0 | 12.0 |
| Z4KE120A | 114 | 126 | 5.0 | 700 | 0.25 | 5000 | 91.2 | 0.5 | 100.0 | 1.0 | 12.0 |
| Z4KE130 | 117 | 143 | 5.0 | 800 | 0.25 | 5000 | 93.6 | 0.5 | 100.0 | 1.0 | 11.0 |
| Z4KE130A | 124 | 137 | 5.0 | 800 | 0.25 | 5000 | 99.2 | 0.5 | 100.0 | 1.0 | 11.0 |
| Z4KE140 | 126 | 154 | 5.0 | 900 | 0.25 | 5000 | 100 | 0.5 | 100.0 | 1.0 | 10.7 |
| Z4KE140A | 133 | 147 | 5.0 | 900 | 0.25 | 5500 | 106.4 | 0.5 | 100.0 | 1.0 | 10.7 |
| Z4KE150 | 135 | 165 | 5.0 | 1000 | 0.25 | 6000 | 108.0 | 0.5 | 100.0 | 1.0 | 10.0 |
| Z4KE150A | 142 | 158 | 5.0 | 1000 | 0.25 | 6000 | 113.6 | 0.5 | 100.0 | 1.0 | 10.0 |
| Z4KE160 | 144 | 176 | 5.0 | 1100 | 0.25 | 6500 | 115.2 | 0.5 | 100.0 | 1.0 | 9.0 |
| Z4KE160A | 152 | 168 | 5.0 | 1100 | 0.25 | 6500 | 121.6 | 0.5 | 100.0 | 1.0 | 9.0 |
| Z4KE170 | 153 | 187 | 5.0 | 1200 | 0.25 | 7000 | 122.4 | 0.5 | 100.0 | 1.0 | 8.8 |
| Z4KE170A | 162 | 179 | 5.0 | 1200 | 0.25 | 7000 | 129.6 | 0.5 | 100.0 | 1.0 | 8.0 |
| Z4KE180 | 162 | 198 | 5.0 | 1300 | 0.25 | 7000 | 129.6 | 0.5 | 100.0 | 1.0 | 8.0 |
| Z4KE180A | 171 | 189 | 5.0 | 1300 | 0.25 | 7000 | 136.8 | 0.5 | 100.0 | 1.0 | 8.0 |
| Z4KE190 | 171 | 209 | 5.0 | 1400 | 0.25 | 7500 | 136.8 | 0.5 | 100.0 | 1.0 | 7.9 |
| Z4KE190A | 180 | 200 | 5.0 | 1400 | 0.25 | 7500 | 144.0 | 0.5 | 100.0 | 1.0 | 7.9 |
| Z4KE200 | 180 | 220 | 5.0 | 1500 | 0.25 | 8000 | 144.0 | 0.5 | 100.0 | 1.0 | 7.0 |
| Z4KE200A | 190 | 210 | 5.0 | 1500 | 0.25 | 8000 | 152.0 | 0.5 | 100.0 | 1.0 | 7.0 |

NOTES:

- (1) Standard voltage tolerance is $\pm 10\%$, suffix "A" is $\pm 5\%$
- (2) Temperature rating at specified regulator current is $T_L=30^\circ C$
- (3) Maximum steady state power dissipation is 1.5 watts at $T_L=75^\circ C$ with lead length 0.375" (9.5mm)

RATINGS AND CHARACTERISTICS CURVES Z4KE100 THRU Z4KE200A

FIG. 1 - MAXIMUM CONTINUOUS POWER DISSIPATION

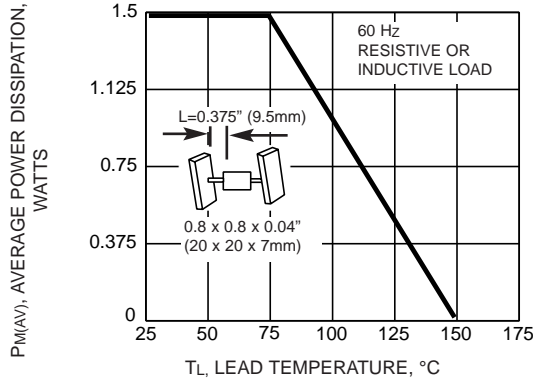


FIG. 2 - TYPICAL ZENER IMPEDANCE

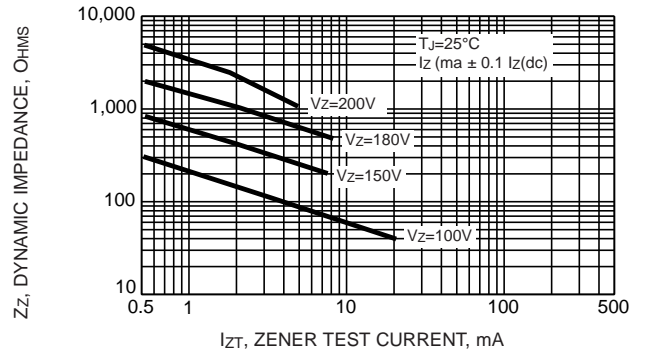


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

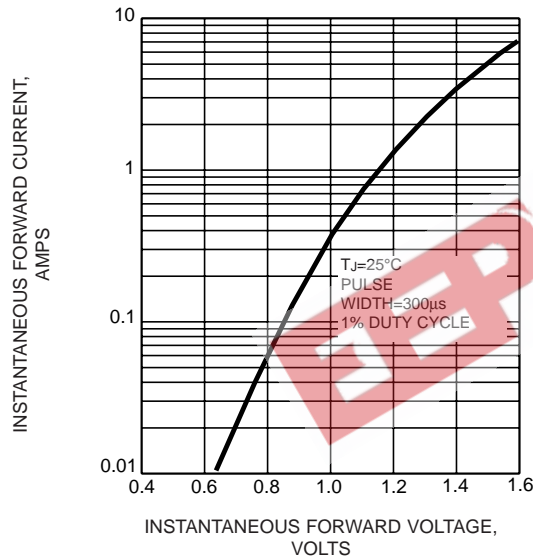


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

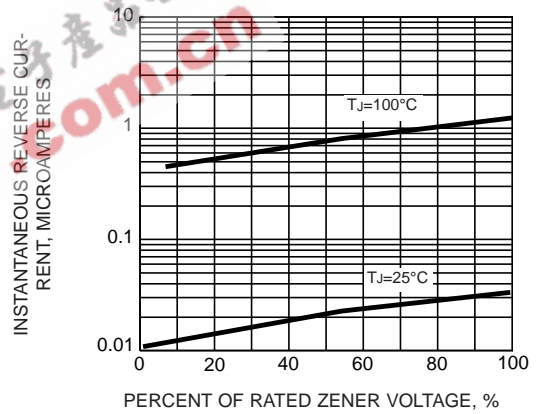


FIG. 5 - TYPICAL TEMPERATURE COEFFICIENTS

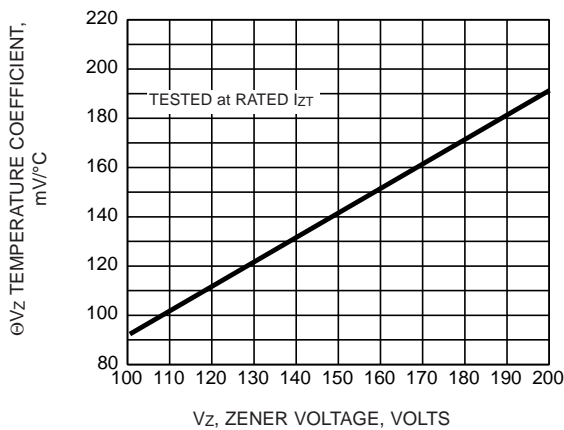


FIG. 6 - TYPICAL ZENER VOLTAGE

