

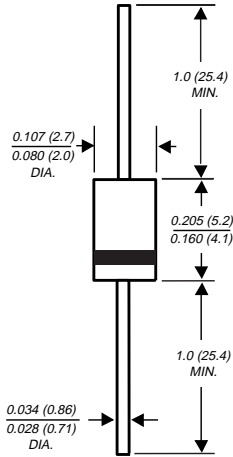
# Z4KE100 THRU Z4KE200A

## GLASS PASSIVATED ZENER

Zener Voltage - 100 to 200 Volts

Steady State Power - 1.5 Watts

### DO-204AL



Dimensions in inches and (millimeters)

### 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

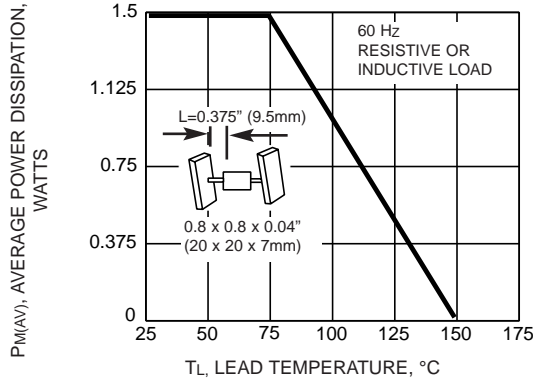
TYPE	ZENER VOLTAGE at 5.0mA		MAXIMUM ZENER DYNAMIC IMPEDANCE				MAXIMUM DC REVERSE LEAKAGE CURRENT AT $V_R$			MAXIMUM INSTANTANEOUS FORWARD VOLTAGE at 0.50A	MAXIMUM CONTINUOUS REGULATOR CURRENT <sup>(1)</sup>
	$V_Z$ (Volts)		$I_{ZT}$ (mA)	$Z_{ZT}$ (Ohms)	$I_{ZK}$ (mA)	$Z_{ZK}$ (Ohms)	$V_R$ (Volts)	$I_R$ @ 25°C ( $\mu$ A)	$I_R$ 100°C ( $\mu$ A)	$V_{FM}$ (Volts)	$I_{ZM}$ ( $\mu$ A)
	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:

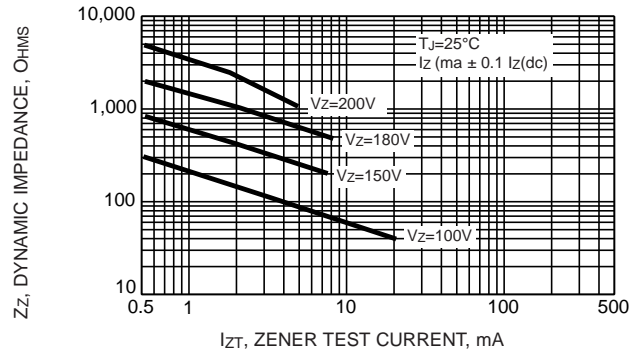
- (1) Standard voltage tolerance is  $\pm 10\%$ , suffix "A" is  $\pm 5\%$
- (2) Temperature rating at specified regulator current is  $T_L=30^\circ\text{C}$
- (3) Maximum steady state power dissipation is 1.5 watts at  $T_L=75^\circ\text{C}$  with lead length 0.375" (9.5mm)

# RATINGS AND CHARACTERISTICS CURVES Z4KE100 THRU Z4KE200A

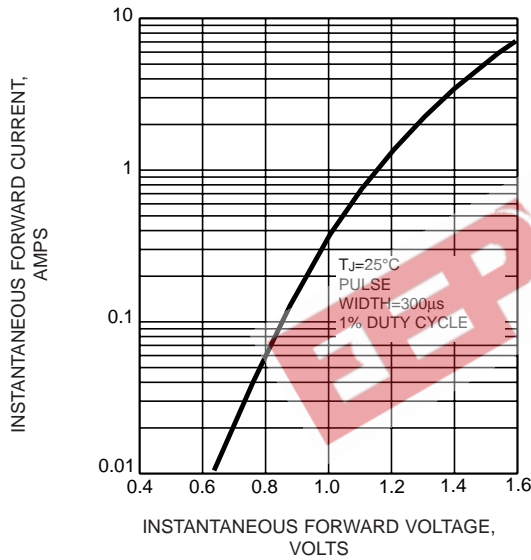
**FIG. 1 - MAXIMUM CONTINUOUS POWER DISSIPATION**



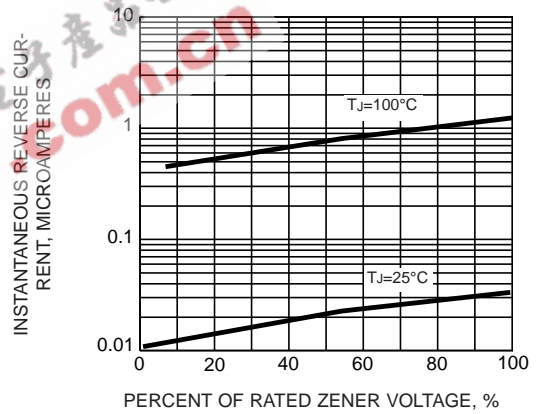
**FIG. 2 - TYPICAL ZENER IMPEDANCE**



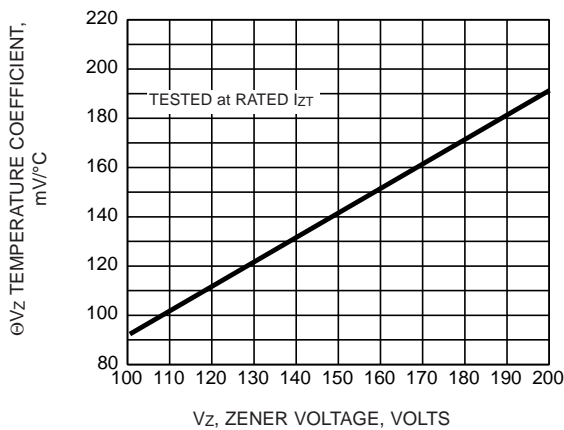
**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL TEMPERATURE COEFFICIENTS**



**FIG. 6 - TYPICAL ZENER VOLTAGE**

