

# CODI Semiconductor, Inc.

- 12.8 VOLT NOMINAL ZENER VOLTAGE  $\pm 5\%$
- TEMPERATURE COMPENSATED ZENER REFERENCE DIODES
- LOW NOISE

## 1N4896 thru 1N4915A

### \*MAXIMUM RATINGS

Operating Temperature:  $-65^{\circ}\text{C}$  to  $+200^{\circ}\text{C}$   
 Storage Temperature:  $-65^{\circ}\text{C}$  to  $+200^{\circ}\text{C}$   
 DC Power Dissipation: 500mW @  $50^{\circ}\text{C}$   
 Power Derating: 3.33 mW/ $^{\circ}\text{C}$  above  $50^{\circ}\text{C}$

### \*ELECTRICAL CHARACTERISTICS @ $25^{\circ}\text{C}$ , unless otherwise specified

JEDEC TYPE NUMBER	TEST CURRENT I <sub>ZT</sub>	VOLTAGE TEMPERATURE STABILITY $\Delta V_{ZT}$ (Note 2)	TEMPERATURE RANGE	EFFECTIVE TEMPERATURE COEFFICIENT	MAXIMUM DYNAMIC IMPEDANCE Z <sub>DT</sub> (Note 1)	MAXIMUM NOISE DENSITY N <sub>p</sub>
1N4896	0.5	96	+25 to +100	0.01	400	0.8
1N4896A	0.5	198	-55 to +100	0.01	400	0.8
1N4897	0.5	48	+25 to +100	0.005	400	0.8
1N4897A	0.5	99	-55 to +100	0.005	400	0.8
1N4898	0.5	19	+25 to +100	0.002	400	0.8
1N4898A	0.5	40	-55 to +100	0.002	400	0.8
1N4899	0.5	10	+25 to +100	0.001	400	0.8
1N4899A	0.5	20	-55 to +100	0.001	400	0.8
1N4900	1.0	96	+25 to +100	0.01	200	0.4
1N4900A	1.0	198	-55 to +100	0.01	200	0.4
1N4901	1.0	48	+25 to +100	0.005	200	0.4
1N4901A	1.0	99	55 to +100	0.005	200	0.4
1N4902	1.0	19	+25 to +100	0.002	200	0.4
1N4902A	1.0	40	-55 to +100	0.002	200	0.4
1N4903	1.0	10	+25 to +100	0.001	200	0.4
1N4903A	1.0	20	-55 to +100	0.001	200	0.4
1N4904	2.0	96	+25 to +100	0.01	100	0.25
1N4904A	2.0	198	55 to +100	0.01	100	0.25
1N4905	2.0	48	+25 to +100	0.005	100	0.25
1N4905A	2.0	99	-55 to +100	0.005	100	0.25
1N4906	2.0	19	+25 to +100	0.002	100	0.25
1N4906A	2.0	40	-55 to +100	0.002	100	0.25
1N4907	2.0	10	+25 to +100	0.001	100	0.25
1N4907A	2.0	20	-55 to +100	0.001	100	0.25
1N4908	4.0	96	+25 to +100	0.01	50	0.22
1N4908A	4.0	198	-55 to +100	0.01	50	0.22
1N4909	4.0	48	+25 to +100	0.005	50	0.22
1N4909A	4.0	99	-55 to +100	0.005	50	0.22
1N4910	4.0	19	+25 to +100	0.002	50	0.22
1N4910A	4.0	40	-55 to +100	0.002	50	0.22
1N4911	4.0	10	+25 to +100	0.001	50	0.22
1N4911A	4.0	20	-55 to +100	0.001	50	0.22
1N4912	7.5	96	+25 to +100	0.01	25	0.20
1N4912A	7.5	198	-55 to +100	0.01	25	0.20
1N4913	7.5	48	+25 to +100	0.005	25	0.20
1N4913A	7.5	99	-55 to +100	0.005	25	0.20
1N4914	7.5	19	+25 to +100	0.002	25	0.20
1N4914A	7.5	40	-55 to +100	0.002	25	0.20
1N4915	7.5	10	+25 to +100	0.001	25	0.20
1N4915A	7.5	20	55 to +100	0.001	25	0.20

\*JEDEC Registered Data.

**NOTE 1** Zener impedance is derived by superimposing on I<sub>ZT</sub> a 60 Hz rms a.c. current equal to 10% of I<sub>ZT</sub>.

**NOTE 2** Maximum allowable change observed over the entire temperature range.

**NOTE 3** Zener voltage range equals 12.8 volts  $\pm 5\%$ .

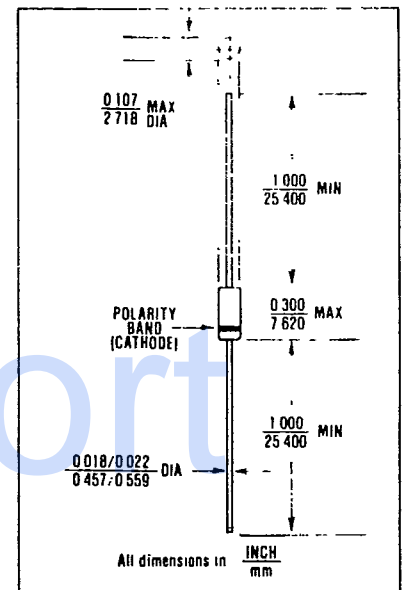


FIGURE 1

### DESIGN DATA

**CASE:** Hermetically sealed glass case. DO-7 outline.

**LEAD MATERIAL:** Copper clad steel.

**LEAD FINISH:** Tin Plate

**THERMAL RESISTANCE:** 250  $^{\circ}\text{C}/\text{W}$  (Typical) junction to ambient.

**POLARITY:** Diode to be operated with the banded (cathode) end positive with respect to the opposite end;

**WEIGHT:** 0.2 grams.

**MOUNTING POSITION:** Any.

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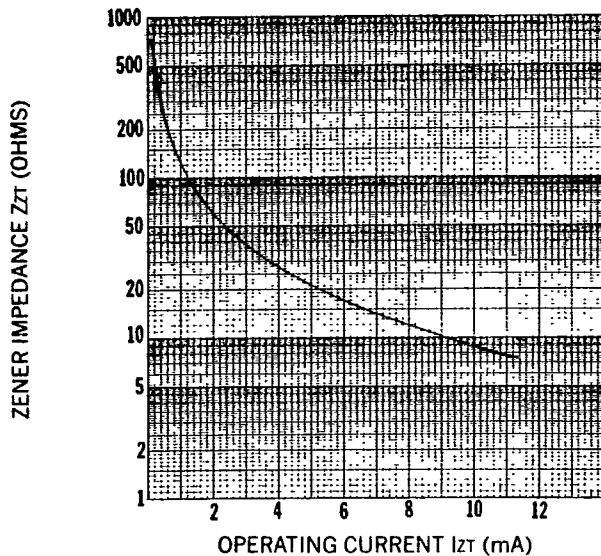


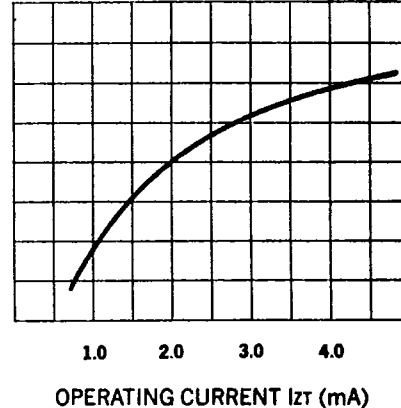
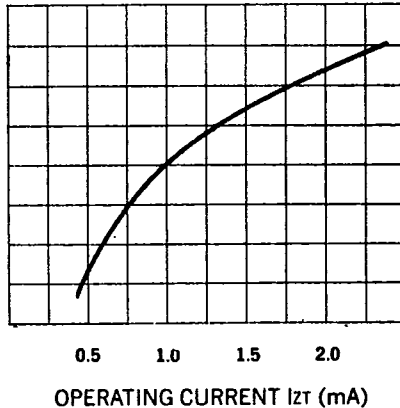
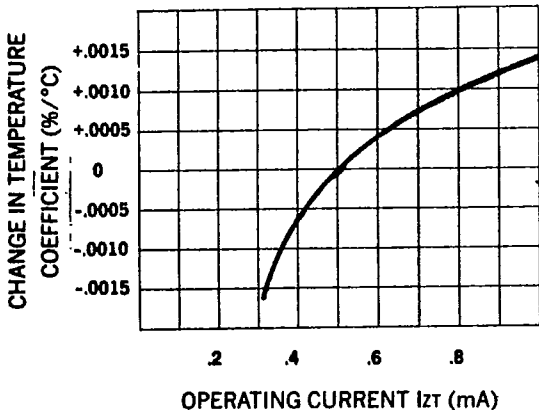
FIGURE 2

TYPICAL CHANGE OF ZENER IMPEDANCE WITH CHANGE IN OPERATING CURRENT

## 1N4896 - 1N4899

## 1N4900 - 1N4903

## 1N4904 - 1N4907



## 1N4908 - 1N4911

## 1N4912 - 1N4915

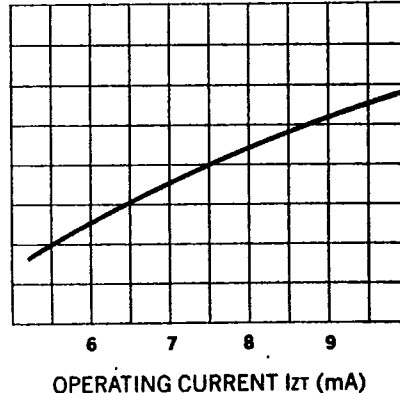
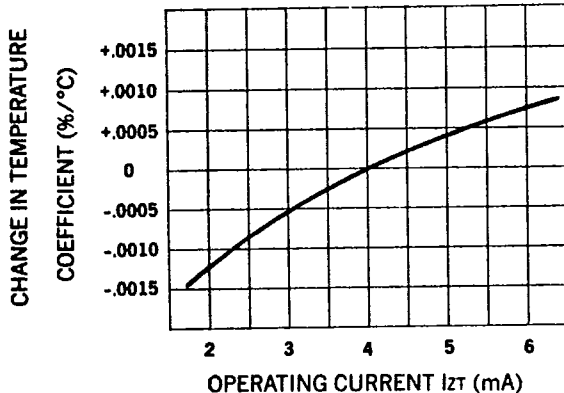


FIGURE 3

TYPICAL CHANGE OF TEMPERATURE COEFFICIENT WITH CHANGE IN OPERATING CURRENT