

1N4057 thru 1N4085A

FEATURES

- ZENER VOLTAGE 12.4V to 200V
- TEMPERATURE COEFFICIENT RANGE: 0.005%/°C to 0.002%/°C

MAXIMUM RATINGS

See Electrical Characteristics Below
DC Power Dissipation: Case CC: 1.5W
At 25°C derate Case DD: 2W
Linearly to Zero Case EE: 2.5W
at +150°C

HIGH VOLTAGE TEMPERATURE COMPENSATED ZENER DIODES

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

JEDEC TYPE NUMBER	ZENER VOLTAGE V_Z at I_{FZ} VOLTS ($\pm 5\%$) (See Note 1)	ZENER TEST CURRENT (I _{FZ}) MA	MAXIMUM DYNAMICS IMPEDANCE (Z ₀) OHMS	MAXIMUM TEMPERATURE COEFFICIENT (See Note 2) α_{Vz}		TEMPERATURE RANGE °C	CASE TYPE NO.
				$\pm \%$ / °C	\pm mV / °C		
1N4057	12.4	10.0	25	0.05	62	55 to +25 to +100	CC
1N4057A	12.4	10.0	25	0.02	25	55 to +25 to +100	CC
1N4058	14.6	10.0	30	0.05	73	55 to +25 to +100	CC
1N4058A	14.6	10.0	30	0.02	29	55 to +25 to +100	CC
1N4059	16.8	10.0	30	0.05	84	55 to +25 to +100	CC
1N4059A	16.8	10.0	30	0.02	34	55 to +25 to +100	CC
1N4060	18.5	10.0	30	0.05	92	55 to +25 to +100	CC
1N4060A	18.5	10.0	30	0.02	37	55 to +25 to +100	CC
1N4061	21	10.0	35	0.05	1.05	55 to +25 to +100	CC
1N4061A	21	10.0	35	0.02	42	55 to +25 to +100	CC
1N4062	23	10.0	40	0.05	1.15	55 to +25 to +100	CC
1N4062A	23	10.0	40	0.02	46	55 to +25 to +100	CC
1N4063	27	10.0	45	0.05	1.35	55 to +25 to +100	CC
1N4063A	27	10.0	45	0.02	54	55 to +25 to +100	CC
1N4064	30	10.0	50	0.05	1.50	55 to +25 to +100	CC
1N4064A	30	10.0	50	0.02	60	55 to +25 to +100	CC
1N4065	33	10.0	55	0.05	1.65	55 to +25 to +100	CC
1N4065A	33	10.0	55	0.02	66	55 to +25 to +100	CC
1N4066	37	7.5	80	0.05	1.85	55 to +25 to +100	CC
1N4066A	37	7.5	80	0.02	74	55 to +25 to +100	CC
1N4067	43	7.5	90	0.05	2.15	55 to +25 to +100	CC
1N4067A	43	7.5	90	0.02	86	55 to +25 to +100	CC
1N4068	47	7.5	100	0.05	2.35	55 to +25 to +100	CC
1N4068A	47	7.5	100	0.02	94	55 to +25 to +100	CC
1N4069	51	7.5	110	0.05	2.55	55 to +25 to +100	DD
1N4069A	51	7.5	110	0.02	1.02	55 to +25 to +100	DD
1N4070	56	7.5	120	0.05	2.80	55 to +25 to +100	DD
1N4070A	56	7.5	120	0.02	1.12	55 to +25 to +100	DD
1N4071	62	7.5	135	0.05	3.10	55 to +25 to +100	DD
1N4071A	62	7.5	135	0.02	1.24	55 to +25 to +100	DD
1N4072	68	5.0	240	0.05	3.40	55 to +25 to +100	DD
1N4072A	68	5.0	230	0.02	1.36	55 to +25 to +100	DD
1N4073	75	5.0	250	0.05	3.75	55 to +25 to +100	DD
1N4073A	75	5.0	253	0.02	1.50	55 to +25 to +100	DD
1N4074	82	5.0	270	0.05	4.10	55 to +25 to +100	DD
1N4074A	82	5.0	270	0.02	1.64	55 to +25 to +100	DD
1N4075	87	5.0	290	0.05	4.35	55 to +25 to +100	DD
1N4075A	87	5.0	290	0.02	1.74	55 to +25 to +100	DD
1N4076	91	5.0	310	0.05	4.55	55 to +25 to +100	DD
1N4076A	91	5.0	310	0.02	1.82	55 to +25 to +100	DD
1N4077	100	5.0	340	0.05	5.00	55 to +25 to +100	DD
1N4077A	100	5.0	340	0.02	2.00	55 to +25 to +100	DD
1N4078	105	2.5	700	0.05	5.25	55 to +25 to +100	DD
1N4078A	105	2.5	700	0.02	2.10	55 to +25 to +100	DD
1N4079	110	2.5	740	0.05	5.50	55 to +25 to +100	DD
1N4079A	110	2.5	740	0.02	2.20	55 to +25 to +100	DD
1N4080	120	2.5	800	0.05	6.00	55 to +25 to +100	DD
1N4080A	120	2.5	800	0.02	2.40	55 to +25 to +100	DD
1N4081	130	2.5	840	0.05	6.50	55 to +25 to +100	EE
1N4081A	130	2.5	840	0.02	2.60	55 to +25 to +100	EE
1N4082	140	2.5	960	0.05	7.00	55 to +25 to +100	EE
1N4082A	140	2.5	960	0.02	2.80	55 to +25 to +100	EE
1N4083	150	2.5	1020	0.05	7.50	55 to +25 to +100	EE
1N4083A	150	2.5	1020	0.02	3.00	55 to +25 to +100	EE
1N4084	175	2.5	1150	0.05	8.75	55 to +25 to +100	EE
1N4084A	175	2.5	1150	0.02	3.50	55 to +25 to +100	EE
1N4085	200	2.5	1350	0.05	10.00	55 to +25 to +100	EE
1N4085A	200	2.5	1350	0.02	4.00	55 to +25 to +100	EE

*JEDEC Registered Data

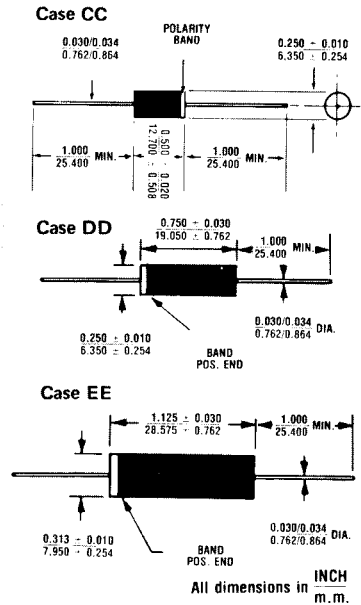


FIGURE 1

MECHANICAL CHARACTERISTICS

FINISH: All external surfaces are corrosion resistant and leads solderable.

MOUNTING POSITION: Any.

1N4057 thru 1N4085A

NOTE 1

Voltage measurements to be performed 15 seconds after application of DC current.

NOTE 2

The 1N4057 through 1N4085 series is specified over the temperature range -55°C to $+100^{\circ}\text{C}$ with measurements made at -55°C , $+100^{\circ}\text{C}$, and at the reference temperature $+25^{\circ}\text{C}$. The maximum voltage change over the range -55°C to $+25^{\circ}\text{C}$ and $+25^{\circ}\text{C}$ to $+100^{\circ}\text{C}$ for this series is limited to the values (expressed in $\text{mV}/^{\circ}\text{C}$) shown in the table on the reverse page. These values are computed by considering the temperature coefficient to be an average over the temperature range. For example, there is an 80°C change in temperature from -55°C to $+25^{\circ}\text{C}$. At an average temperature coefficient of $0.005\%/^{\circ}\text{C}$, the maximum percentage change in voltage would be: $80^{\circ}\text{C} \times 0.005\%/^{\circ}\text{C}$ or 0.4% . For the 1N4057, having a nominal zener voltage of 12.4 volts, the maximum allowable voltage change would be: 0.4% of 12.4 volts or 49.6 millivolts.

NOTE 3

Consult factory for TX, TXV or JANS equivalent SCDs.

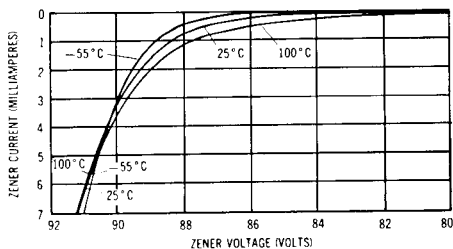


FIGURE 2

TYPICAL VOLT-AMPERE CURVE OF 1N4076A