

Microsemi Corp.

The diode experts

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**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_Z VOLTS ($\pm 5\%$) (See Note 1)	ZENER TEST CURRENT I_Z MA	MAXIMUM DYNAMICS IMPEDANCE z_o (1.) OHMS	MAXIMUM TEMPER- ATURE COEFFICIENT (See Note 2) α_{VZ}	$\pm \%$ / °C	$\pm$ mV / °C	TEMPERATURE RANGE °C	CASE TYPE NO.
1N4057	12.4	10.0	25	0.005		62	55 to +25 to +100	CC
1N4057A	12.4	10.0	25	0.002		25	55 to +25 to +100	CC
1N4058	14.6	10.0	30	0.005		73	55 to +25 to +100	CC
1N4058A	14.6	10.0	30	0.002		29	55 to +25 to +100	CC
1N4059	16.8	10.0	30	0.005		84	55 to +25 to +100	CC
1N4059A	16.8	10.0	30	0.002		34	55 to +25 to +100	CC
1N4060	18.5	10.0	30	0.005		92	55 to +25 to +100	CC
1N4060A	18.5	10.0	30	0.002		37	55 to +25 to +100	CC
1N4061	21	10.0	35	0.005		105	55 to +25 to +100	CC
1N4061A	21	10.0	35	0.002		42	55 to +25 to +100	CC
1N4062	23	10.0	40	0.005		115	55 to +25 to +100	CC
1N4062A	23	10.0	40	0.002		46	55 to +25 to +100	CC
1N4063	27	10.0	45	0.005		135	55 to +25 to +100	CC
1N4063A	27	10.0	45	0.002		54	55 to +25 to +100	CC
1N4064	30	10.0	50	0.005		150	55 to +25 to +100	CC
1N4064A	30	10.0	50	0.002		60	55 to +25 to +100	CC
1N4065	33	10.0	55	0.005		165	55 to +25 to +100	CC
1N4065A	33	10.0	55	0.002		66	55 to +25 to +100	CC
1N4066	37	7.5	80	0.005		185	55 to +25 to +100	CC
1N4066A	37	7.5	80	0.002		74	55 to +25 to +100	CC
1N4067	43	7.5	90	0.005		215	55 to +25 to +100	CC
1N4067A	43	7.5	90	0.002		86	55 to +25 to +100	CC
1N4068	47	7.5	100	0.005		235	55 to +25 to +100	CC
1N4068A	47	7.5	100	0.002		94	55 to +25 to +100	CC
1N4069	51	7.5	110	0.005		255	55 to +25 to +100	DD
1N4069A	51	7.5	110	0.002		102	55 to +25 to +100	DD
1N4070	56	7.5	120	0.005		280	55 to +25 to +100	DD
1N4070A	56	7.5	120	0.002		112	55 to +25 to +100	DD
1N4071	62	7.5	135	0.005		310	55 to +25 to +100	DD
1N4071A	62	7.5	135	0.002		124	55 to +25 to +100	DD
1N4072	68	5.0	240	0.005		340	55 to +25 to +100	DD
1N4072A	68	5.0	230	0.002		136	55 to +25 to +100	DD
1N4073	75	5.0	250	0.005		375	55 to +25 to +100	DD
1N4073A	75	5.0	253	0.002		150	55 to +25 to +100	DD
1N4074	82	5.0	270	0.005		410	55 to +25 to +100	DD
1N4074A	82	5.0	270	0.002		164	55 to +25 to +100	DD
1N4075	87	5.0	290	0.005		435	55 to +25 to +100	DD
1N4075A	87	5.0	290	0.002		174	55 to +25 to +100	DD
1N4076	91	5.0	310	0.005		455	55 to +25 to +100	DD
1N4076A	91	5.0	310	0.002		182	55 to +25 to +100	DD
1N4077	100	5.0	310	0.005		500	55 to +25 to +100	DD
1N4077A	100	5.0	340	0.002		200	55 to +25 to +100	DD
1N4078	105	2.5	700	0.005		525	55 to +25 to +100	DD
1N4078A	105	2.5	700	0.002		210	55 to +25 to +100	DD
1N4079	110	2.5	740	0.005		550	55 to +25 to +100	DD
1N4079A	110	2.5	740	0.002		220	55 to +25 to +100	DD
1N4080	120	2.5	800	0.005		600	55 to +25 to +100	DD
1N4080A	120	2.5	800	0.002		240	55 to +25 to +100	DD
1N4081	130	2.5	840	0.005		650	55 to +25 to +100	EE
1N4081A	130	2.5	840	0.002		260	55 to +25 to +100	EE
1N4082	140	2.5	960	0.005		700	55 to +25 to +100	EE
1N4082A	140	2.5	960	0.002		280	55 to +25 to +100	EE
1N4083	150	2.5	1020	0.005		750	55 to +25 to +100	EE
1N4083A	150	2.5	1020	0.002		300	55 to +25 to +100	EE
1N4084	175	2.5	1150	0.005		875	55 to +25 to +100	EE
1N4084A	175	2.5	1150	0.002		350	55 to +25 to +100	EE
1N4085	200	2.5	1350	0.005		1000	55 to +25 to +100	EE
1N4085A	200	2.5	1350	0.002		400	55 to +25 to +100	EE

*JEDEC Registered Data

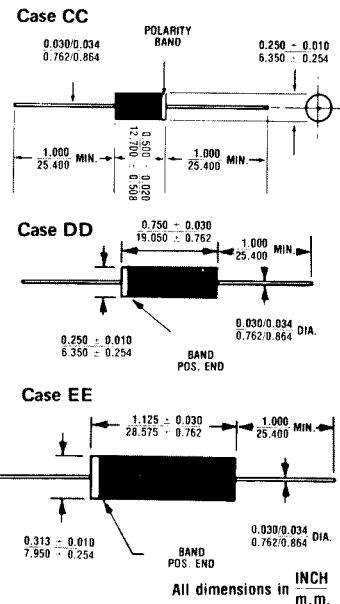


FIGURE 1

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.

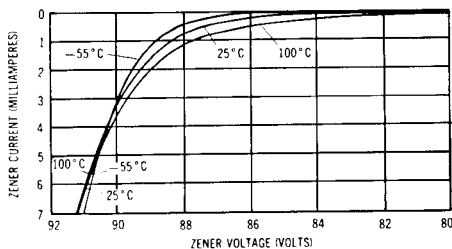


FIGURE 2
TYPICAL VOLT-AMPERE CURVE OF 1N4076A