

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

*JEDEC Registered Data

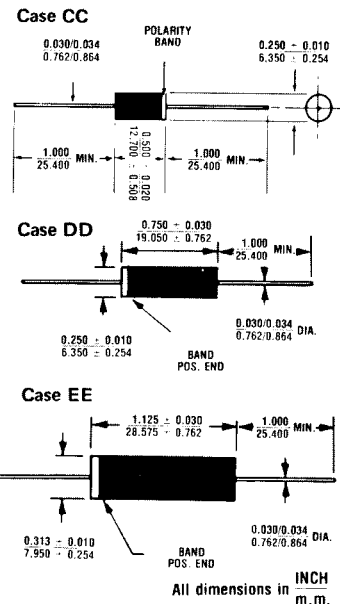


FIGURE 1

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.

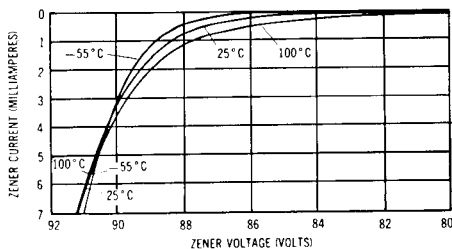


FIGURE 2
TYPICAL VOLT-AMPERE CURVE OF 1N4076A

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