

TECHNICAL DATA
DATA SHEET 5170, Rev A

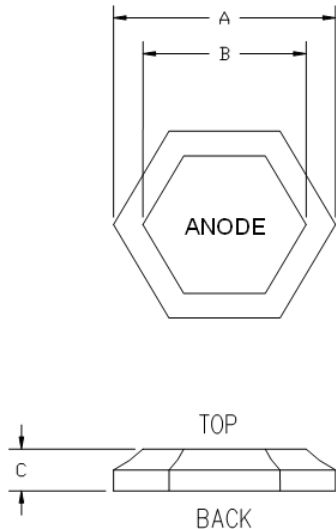
Zener 5W Voltage Regulator

- All ratings are @Tc=25°C, unless otherwise specified
- VF < 1.5V at IF=1A
- Operating and Storage Temperature: -65°C to +175°C

SERIES TYPE	V _Z MIN	V _Z MAX	TEST CURRENT I _Z	MAX ZENER IMPEDANCE		MAX VOLTAGE REGULATION	SURGE CURRENT I _{ZSM}	MAX REVERSE CURRENT	REVERSE VOLTAGE	TEMP. COEFF αV _Z	MAX DC CURRENT
				Z _Z	Z _{ZK}	V _Z		V _R	I _{R1}		I _{ZM}
5W	V	V	mA	Ω	Ω	V	A	V	μA	% /°C	mA
1C4954	6.46	7.14	175	1	1,000	.7	29.3	5.2	150	.05	700
1C4955	7.13	7.87	175	1.5	800	.7	26.4	5.7	100	.06	630
1C4956	7.79	8.61	150	1.5	600	.7	24	6.2	50	.06	580
1C4957	8.65	9.55	150	2	400	.7	22	6.9	25	.06	520
1C4958	9.50	10.50	125	2	125	.8	20	7.6	25	.07	475
1C4959	10.45	11.55	125	2.5	130	.8	19	8.4	10	.07	430
1C4960	11.40	12.60	100	2.5	140	.8	18	9.1	10	.07	395
1C4961	12.35	13.65	100	3	145	.9	16	9.9	10	.08	365
1C4962	14.25	15.75	75	3.5	150	1.0	12	11.4	5	.08	315
1C4963	15.20	16.80	75	3.5	155	1.1	10	12.2	5	.08	294
1C4964	17.10	18.90	65	4	160	1.2	9.0	13.7	5	.085	264
1C4965	19.00	21.00	65	4.5	165	1.5	8.0	15.2	2	.085	237
1C4966	20.90	23.10	50	5	170	1.8	7.0	16.7	2	.085	216
1C4967	22.8	25.2	50	5	175	2.0	6.5	18.2	2	.09	198
1C4968	25.7	28.3	50	6	180	2.0	6.0	20.6	2	.09	176
1C4969	28.5	31.5	40	8	190	2.5	5.5	22.8	2	.09	158
1C4970	31.4	34.6	40	10	200	2.8	5.0	25.1	2	.095	144
1C4971	34.2	37.8	30	11	220	3.0	4.5	27.4	2	.095	132
1C4972	37.1	40.9	30	14	230	3.0	4.0	29.7	2	.095	122
1C4973	40.9	45.1	30	20	240	3.3	3.5	32.7	2	.095	110
1C4974	44.7	49.3	25	25	250	3.5	3.2	35.8	2	.095	100
1C4975	48.5	53.5	25	27	270	4.0	3.0	38.8	2	.095	92
1C4976	53.2	58.8	20	35	320	4.4	2.8	42.6	2	.095	84
1C4977	58.9	65.1	20	42	400	5.0	2.5	47.1	2	.100	76
1C4978	64.6	71.4	20	50	500	5.5	2.2	51.7	2	.100	70
1C4979	71.3	78.7	20	55	620	6.0	2.0	56	2	.100	63
1C4980	77.9	86.1	15	80	720	6.6	1.8	62.2	2	.100	58.0
1C4981	86.5	95.5	15	90	760	7.5	1.6	69.2	2	.100	52.5
1C4982	95.0	105	12	110	800	8.0	1.4	76.0	2	.100	47.5
1C4983	104.5	115.5	12	125	1,000	9.0	1.2	83.6	2	.100	43.0
1C4984	114.0	126.0	10	170	1,150	10	1.0	91.2	2	.100	39.5
1C4985	123.5	136.5	10	190	1,250	11	.8	98.8	2	.105	36.6
1C4986	142.5	157.5	8	330	1,500	13	.75	114.0	2	.105	31.6
1C4987	152	168	8	350	1,650	14	.70	121.6	2	.105	29.4
1C4988	171	189	5	450	1,750	16	.60	136.8	2	.110	26.4
1C4989	190	210	5	500	1,850	18	.50	152.0	2	.110	23.6
1C4990	209	231	5	550	2,000	19	.50	167	2	.115	21.6
1C4991	228	252	5	650	2,050	22	.40	182	2	.115	19.8
1C4992	257	283	5	800	2,100	25	.35	206	2	.120	17.5
1C4993	285	315	4	950	2,150	28	.30	228	2	.120	15.6
1C4994	314	346	4	1175	2,200	32	.25	251	2	.120	14.4
1C4995	342	378	3	1400	2,300	35	.22	274	2	.120	13
1C4996	371	409	3	1800	2,500	40	.20	297	2	.120	12

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MECHANICAL DIMENSIONS: In Inches (mm)



Top side metalization: Al - 30 kA minimum.
Bottom side metalization: Ti/Ni/Ag - 30 kA minimum.
Top side is anode, bottom side is cathode.

For cathode top, add -R
See part order information below

MIL-PRF	DIMENSIONS – INCHES (MILIMETERS)					
	A		B		C	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
MIL-PRF-19500/356K	0.087 (2.21)	0.091 (2.31)	0.069 (1.75)	0.075 (1.91)	0.0095 (0.24)	0.0105 (0.27)

PART ORDERING INFORMATION

Default part number is Al top, Ag bottom.

Add the following suffix for these metal combinations:

Suffix	Top	Bottom	Part Number
	Al	Ag	1C4988
AG	Al	Au	1C4988AG
BB	Ag	Ag	1C4988BB
BG	Ag	Au	1C4988BG
GG	Au	Au	1C4988GG
GB	Au	Ag	1C4988GB
-R	- Reverse polarity -		1C4988-R

A = Ti (0.3 kA) / Al (25 kA)

B = Ti (1.2 kA) / Ni (1.8 kA) / Ag (30kA)

G = Ti (1.2 kA) / Ni (1.8 kA) / Au (12kA) (**TOP**) / Ti (1.2 kA) / Ni (1.8 kA) / Au (4kA) (**BOTTOM**)

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