Micro Commercial Components
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1N957 THRU 1N978

0.5W Silicon Planar Zener Diodes

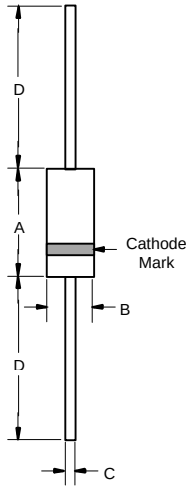
Features

- Zener Voltage 6.8V to 51V
- Silicon Planar Power Zener Diodes
- Standards zener voltage tolerance is ±20%, Add suffix “A” for ±10% tolerance and suffix “B” for ±5% tolerance, non standards and higher zener voltage upon request

Mechanical Data

- Case: DO-35 glass case
- Polarity: Color band denotes cathode end
- Weight: Approx. 0.13 gram

DO-35



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

Maximum Ratings

	Symbol	Value	Units
Zener Current		See Table 1	
Power Dissipation @ T_A=25°C	P_{tot}	500	mW
Junction Temperature	T_J	175	°C
Storage Temperature Range	T_{STG}	-65 to 175	°C

Electrical Characteristics @ 25 °C Unless Otherwise Specified

	Symbol	Maximum	Unit
Thermal resistance	$R_{\theta JA}$	300	°C/W
Forward Voltage @ I_F=200mA	V_F	1.5	V

NOTE:

Valid provided that a distance of 8mm from case are kept at ambient temperature

1N957 thru 1N978

MCC PART NUMBER	ZENER VOLTAGE[3] @TEST CURRENT		MAXIMUM ZENER IMPEDANCE[1]			MAXIMUM REVERSE LEAKAGE CURRENT TEST-VOLTAGE			MAXIMUM ZENER CURRENT	TYPICAL TEMP. COEFFICIENT
	V_Z	I_{ZT}	Z_{ZT}	Z_{ZK}	I_{ZK}	I_R[2]	Suffix A	Suffix B	I_{ZM}[2]	
	V	mA	Ω	Ω	mA	μA	V	V	mA	%/℃
1N957	6.8	18.5	4.5	700	1.0	150	4.9	5.2	47	0.050
1N958	7.5	16.5	5.5	700	0.5	75	5.4	5.7	42	0.058
1N959	8.2	15	5.5	700	0.5	50	5.9	6.2	38	0.062
1N960	9.1	14	5.5	700	0.5	10	6.6	6.9	35	0.068
1N961	10	12.5	5.5	700	0.25	5	7.2	7.6	32	0.075
1N962	11	11.5	5	700	0.25	5	8.0	8.4	28	0.076
1N963	12	10.5	11.5	700	0.25	5	8.6	9.1	26	0.077
1N964	13	9.5	13	700	0.25	5	9.4	9.9	24	0.079
1N965	15	8.5	16	700	0.25	5	10.8	11.4	21	0.082
1N966	16	7.8	17	700	0.25	5	11.5	12.2	19	0.083
1N967	18	7.0	21	750	0.25	5	13.0	13.7	17	0.085
1N968	20	6.2	25	750	0.25	5	14.4	15.2	15	0.086
1N969	22	5.6	29	750	0.25	5	15.8	16.7	14	0.087
1N970	24	5.2	33	750	0.25	5	17.3	18.2	14	0.088
1N971	27	4.6	41	750	0.25	5	19.4	20.6	11	0.090
1N972	30	4.2	49	1000	0.25	5	21.6	22.8	10	0.091
1N973	33	3.8	58	1000	0.25	5	23.8	25.1	9.0	0.092
1N974	36	3.4	70	1000	0.25	5	25.9	27.4	8.5	0.093
1N975	39	3.2	80	1000	0.25	5	28.1	29.7	7.8	0.094
1N976	43	3.0	93	1500	0.25	5	31.0	32.7	7.0	0.095
1N977	47	2.7	105	1500	0.25	5	33.8	35.8	6.4	0.095
1N978	51	2.5	125	1500	0.25	5	36.7	38.8	5.9	0.096

Note:

1) The Zener impedance is derived from the 1kHz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT}) is superimposed on I_{ZT} Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.
2) Valid provided that leads are kept at ambient temperature at a distance of 8mm from case.
3) Measured with device junction in thermal equilibrium.