

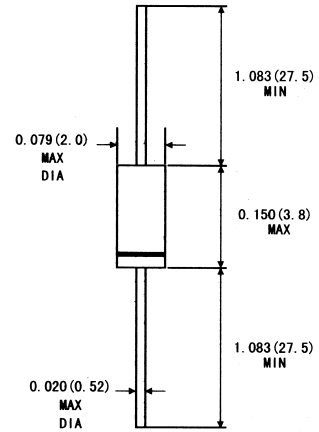
FEATURES

- Silicon planar power zener diodes
- Standards zener voltage tolerance is $\pm 20\%$. Add suffix "A" for $\pm 10\%$ tolerance and suffix "B" for $\pm 5\%$ tolerance other tolerance, non standards and higher zener voltage upon request

MECHANICAL DATA

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

DO-35



Dimensions in inches and (millimeters)

ABSOLUTE MAXIMUM RATINGS(LIMITING VALUES)($T_A=25^\circ\text{C}$)

	Symbols	Value	Units
Zener current see table "Characteristics"			
Power dissipation at $T_A=75^\circ\text{C}$	P_{tot}	500 ¹⁾	mW
Junction temperature	T_J	175	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to + 175	$^\circ\text{C}$

1)Valid provided that at a distance of 8mm from case are kept at ambient temperature(DO-35)

ELECTRICAL CHARACTERISTICS($T_A=25^\circ\text{C}$)

	Symbols	Min.	Typ.	Max.	Units
Thermal resistance junction to ambient	$R_{\theta JA}$			300 ¹⁾	$^\circ\text{C}/\text{W}$
Forward voltage at $I_F=200\text{mA}$	V_F			1.5	

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

1N957..1N978 SILICON PLANAR ZENER DIODES

Type	Zener Voltage Range ³⁾		Maximum zener impedance ¹⁾			Typical Temperature coefficient	Maximum Reverse Leakage Current			Maximum Regulator Current I _{ZM 2)}					
	V _{ZNOM} V	I _{ZT} mA	Z _{ZT} Ω	Z _{ZK} Ω	I _{ZK} mA		I _{R 2)} μA	Test-Voltage							
								suffix A V	suffix B V						
1N957	6.8	18.5	4.5	700	1	0.050	150	4.9	5.2	47					
1N958	7.5	16.5	5.5					0.5	0.058	75	5.4	5.7	42		
1N959	8.2	15									0.062	50	5.9	6.2	38
1N960	9.1	14											0.068	10	6.6
1N961	10	12.5	5		0.075	5	7.2	7.6	32						
1N962	11	11.5					5	0.076	8	8.4	28				
1N963	12	10.5	11.5		750	0.25	5	8.6	9.1	26					
1N964	13	9.5	13					0.077	9.4	9.9	24				
1N965	15	8.5	16					0.079	10.8	11.4	21				
1N966	16	7.8	17					0.082	11.5	12.2	19				
1N967	18	7	21					0.083	13	13.7	17				
1N968	20	6.2	25					0.085	14.4	15.2	15				
1N969	22	5.6	29					0.086	15.8	16.7	14				
1N970	24	5.2	33					0.087	17.3	18.2	14				
1N971	27	4.6	41	0.088				19.4	20.6	11					
1N972	30	4.2	49	0.090				21.6	22.8	10					
1N973	33	3.8	58	1000	0.091	5	23.8	25.1	9.0						
1N974	36	3.4	70				0.092	25.9	27.4	8.5					
1N975	39	3.2	80				0.093	28.1	29.7	7.8					
1N976	43	3	93				0.094	31	32.7	7.0					
1N977	47	2.7	105				0.095	33.8	35.8	6.4					
1N978	51	2.5	125				0.095	36.7	38.8	5.9					

Notes:

- (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.