



1N746 THRU 1N759

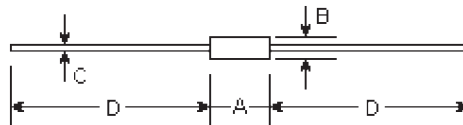
SILICON PLANAR ZENER DIODES

Features

Silicon Planar Zener Diodes

Standard Zener voltage tolerance is $\pm 10\%$. Add suffix "A" for $\pm 5\%$ tolerance. Other tolerances, non standard and higher Zener voltages upon request.

DO-35



DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	-	0.154	-	3.9	
B	-	0.075	-	1.9	ϕ
C	-	0.020	-	0.52	ϕ
D	1.083	-	27.50	-	

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

	Symbols	Values	Units
Zener current see Table "Characteristics"			
Power dissipation at $T_{amb}=50^\circ\text{C}$	P_{tot}	400 ⁽¹⁾	mW
Junction Temperature	T_j	175	$^\circ\text{C}$
Storage temperature range	T_s	-65 to +175	$^\circ\text{C}$

Note:

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

Characteristics at $T_{amb}=25^\circ\text{C}$

	Symbols	Min.	Typ.	Max.	Units
Thermal resistance junction to ambient Air	$R_{\theta JA}$	-	-	0.3 ⁽¹⁾	K/mW
Forward voltage at $I_F=200\text{mA}$	V_F	-	-	1.2	V

Note:

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

Type	Zener voltage range ¹⁾		Maximum Zener Impedance Z_{ZT} at I_{ZT}	Typical Temperature coefficient	Maximum reverse leakage current I_R ²⁾ at $V_R=1V$		Maximum Regulator current I_{ZM}
	V_{Znom}	I_{ZT}			$T_A=25^{\circ}C$	$T_A=150^{\circ}C$	
	V	mA	Ω	%/ $^{\circ}C$	μA	μuA	mA
1N746	3.3	20	28	-0.062	10	30	110
1N747	3.6	20	24	-0.055	10	30	100
1N748	3.9	20	23	-0.049	10	30	95
1N749	4.3	20	22	-0.036	2	30	85
1N750	4.7	20	19	-0.018	2	30	75
1N751	5.1	20	17	-0.008	1	20	70
1N752	5.6	20	11	+0.006	1	20	65
1N753	6.2	20	7	+0.022	0.1	20	60
1N754	6.8	20	5	+0.035	0.1	20	55
1N755	7.5	20	6	+0.045	0.1	20	50
1N756	8.2	20	8	+0.052	0.1	20	45
1N757	9.1	20	10	+0.056	0.1	20	40
1N758	10.0	20	17	+0.060	0.1	20	35
1N759	12.0	20	30	+0.060	0.1	20	30

Notes:

(1) Test with pulse $t_p=20ms$.

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

RATINGS AND CHARACTERISTIC CURVES

Admissible power dissipation versus ambient temperature

Valid provided that leads at a distance of 10 mm from case
are kept at ambient temperature

