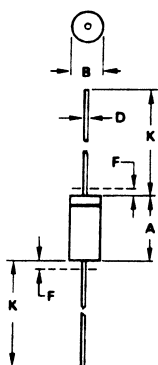


# 1N5518A,B thru 1N5546A,B

## LOW VOLTAGE AVALANCHE ZENER DIODES

400 MILLIWATTS  
3.3 THRU 33 VOLTS



**NOTES:**

1. PACKAGE CONTOUR OPTIONAL WITHIN A AND B. HEAT SLUGS, IF ANY, SHALL BE INCLUDED WITHIN THIS CYLINDER, BUT NOT SUBJECT TO THE MINIMUM LIMIT OF B.
2. LEAD DIAMETER NOT CONTROLLED IN ZONE F TO ALLOW FOR FLASH, LEAD FINISH BUILDUP AND MINOR IRREGULARITIES OTHER THAN HEAT SLUGS.
3. POLARITY DENOTED BY CATHODE BAND.
4. DIMENSIONING AND TOLERANCING PER ANSI Y14.5, 1973.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.05	5.08	0.120	0.200
B	1.52	2.29	0.060	0.090
D	0.46	0.56	0.018	0.022
F	-	1.27	-	0.050
K	25.40	38.10	1.000	1.500

All JEDEC dimensions and notes apply.

Glass  
DO-204AH  
(DG-35)

### LOW VOLTAGE AVALANCHE SILICON OXIDE PASSIVATED ZENER REGULATOR DIODES

Highly reliable silicon regulators utilizing an oxide-passivated junction for long-term voltage stability. Double slug construction provides a rugged, glass-enclosed, hermetically sealed structure.

- Low Zener Noise Specified
- Low Maximum Regulation Factor
- Low Zener Impedance
- Low Leakage Current
- Controlled Forward Characteristics
- Temperature Range: -65 to +200°C

#### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
DC Power Dissipation @ T <sub>A</sub> = 50°C Derate above 50°C	P <sub>D</sub>	400	mW
		3.2	mW/°C
DC Power Dissipation @ T <sub>L</sub> = 50°C Lead Length = 1/8" Derate above 50°C (Figure 1)	P <sub>D</sub>	500	mW
		3.3	mW/°C
Operating and Storage Junction Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-65 to +200	°C

#### MECHANICAL CHARACTERISTICS

- CASE: Hermetically sealed, all-glass
- DIMENSIONS: See outline drawing.
- FINISH: All external surfaces are corrosion resistant and leads are readily solderable and weldable.
- POLARITY: Cathode indicated by polarity band.
- WEIGHT: 0.2 Gram (approx)
- MOUNTING POSITION: Any

#### ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted. Based on dc measurements at thermal equilibrium; V<sub>F</sub> = 1.1 Max @ I<sub>F</sub> = 200 mA for all types)

JEDEC Type No.	Nominal Zener Voltage V <sub>Z</sub> @ I <sub>ZT</sub> Volts	Test Current I <sub>ZT</sub> mAdc	Max Zener Impedance B-C-D Suffix Z <sub>ZT</sub> @ I <sub>ZT</sub> Ohms	Max Reverse Leakage Current			B-C-D Suffix Maximum DC Zener Current I <sub>ZM</sub> mAdc	B-C-D Suffix Max Noise Density at I <sub>Z</sub> = 250 μA N <sub>D</sub> (Figure 1) (micro-volts per square root cycle)	Regulation Factor ΔV <sub>Z</sub> Volts	Low V <sub>Z</sub> Current I <sub>ZL</sub> mAdc
				I <sub>R</sub> μA <sub>dc</sub>	V <sub>R</sub> - Volts					
					Non & A-Suffix	B-C-D Suffix				
1N5518A	3.3	20	26	5.0	0.90	1.0	115	0.5	0.90	2.0
1N5519A	3.6	20	24	3.0	0.90	1.0	105	0.5	0.90	2.0
1N5520A	3.9	20	22	1.0	0.90	1.0	98	0.5	0.85	2.0
1N5521A	4.3	20	18	3.0	1.0	1.5	88	0.5	0.75	2.0
1N5522A	4.7	10	22	2.0	1.5	2.0	81	0.5	0.60	1.0
1N5523A	5.1	5.0	26	2.0	2.0	2.5	75	0.5	0.65	0.25
1N5524A	5.6	3.0	30	2.0	3.0	3.5	68	1.0	0.30	0.25
1N5525A	6.2	1.0	30	1.0	4.5	5.0	61	1.0	0.20	0.01
1N5526A	6.8	1.0	30	1.0	5.5	6.2	56	1.0	0.10	0.01
1N5527A	7.5	1.0	35	0.5	6.0	6.8	51	2.0	0.05	0.01
1N5528A	8.2	1.0	40	0.5	6.5	7.5	46	4.0	0.05	0.01
1N5529A	9.1	1.0	45	0.1	7.0	8.2	42	4.0	0.05	0.01
1N5530A	10.0	1.0	60	0.05	8.0	9.1	38	4.0	0.10	0.01
1N5531A	11.0	1.0	80	0.05	9.0	9.9	35	5.0	0.20	0.01
1N5532A	12.0	1.0	90	0.05	9.5	10.8	32	10	0.20	0.01
1N5533A	13.0	1.0	90	0.01	10.5	11.7	29	15	0.20	0.01
1N5534A	14.0	1.0	100	0.01	11.5	12.6	27	20	0.20	0.01
1N5535A	15.0	1.0	100	0.01	12.5	13.5	25	20	0.20	0.01
1N5536A	16.0	1.0	100	0.01	13.0	14.4	24	20	0.20	0.01
1N5537A	17.0	1.0	100	0.01	14.0	15.3	22	20	0.20	0.01
1N5538A	18.0	1.0	100	0.01	15.0	16.2	21	20	0.20	0.01
1N5539A	19.0	1.0	100	0.01	16.0	17.1	20	20	0.20	0.01
1N5540A	20.0	1.0	100	0.01	17.0	18.0	19	20	0.20	0.01
1N5541A	22.0	1.0	100	0.01	18.0	19.8	17	20	0.25	0.01
1N5542A	24.0	1.0	100	0.01	20.0	21.6	16	20	0.30	0.01
1N5543A	25.0	1.0	100	0.01	21.0	22.4	15	20	0.35	0.01
1N5544A	28.0	1.0	100	0.01	23.0	25.2	14	20	0.40	0.01
1N5545A	30.0	1.0	100	0.01	24.0	27.0	13	20	0.45	0.01
1N5546A	33.0	1.0	100	0.01	28.0	29.7	12	20	0.50	0.01