

1N5518D THRU 1N5546D

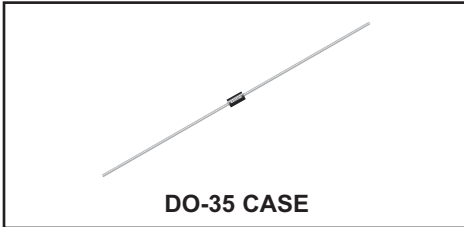
SILICON ZENER DIODES
400mW, 3.3 THRU 33 VOLT
±1% TOLERANCE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N5518D series silicon Zener diode is designed for low leakage, low current, and low noise applications.



DO-35 CASE

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)

Power Dissipation
Operating and Storage Junction Temperature

SYMBOL

P_D
T_J, T_{stg}

UNITS

400
-65 to +200
mW
°C

ELECTRICAL CHARACTERISTICS: (T_A=25°C) V_F=1.1V MAX @ I_F=200mA (for all types)

Type	Zener Voltage V _Z @ I _{ZT}			Test Current I _{ZT}	Maximum Zener Impedance (Note 1) Z _{ZT} @ I _{ZT}	Maximum Reverse Current I _R @ V _R		Maximum Voltage Regulation (Note 2) ΔV _Z @ I _{ZL}		Maximum Regulator Current I _{ZM}	Maximum Noise Density (Note 3) N _D @ 250μA μV/√Hz	Maximum Temperature Coefficient @ I _{ZT} %/°C
	MIN	NOM	MAX			I _{ZT}	Z _{ZT} @ I _{ZT}	I _R	V _R			
	V	V	V	mA	Ω	μA	V	V	mA	mA	μV/√Hz	% / °C
1N5518D	3.267	3.3	3.333	20	26	5.0	1.0	0.9	2.0	115	0.5	-0.070
1N5519D	3.564	3.6	3.636	20	24	3.0	1.0	0.9	2.0	105	0.5	-0.065
1N5520D	3.861	3.9	3.939	20	22	1.0	1.0	0.85	2.0	98	0.5	-0.060
1N5521D	4.257	4.3	4.343	20	18	3.0	1.5	0.75	2.0	88	0.5	-0.055 +0.020
1N5522D	4.653	4.7	4.747	10	22	2.0	2.0	0.60	1.0	81	0.5	-0.043 +0.025
1N5523D	5.049	5.1	5.151	5.0	26	2.0	2.5	0.65	0.25	75	0.5	-0.030 +0.030
1N5524D	5.544	5.6	5.656	3.0	30	2.0	3.5	0.30	0.25	68	1.0	-0.030 +0.045
1N5525D	6.138	6.2	6.262	1.0	30	1.0	5.0	0.20	0.01	61	1.0	+0.050
1N5526D	6.732	6.8	6.868	1.0	30	1.0	6.2	0.10	0.01	56	1.0	+0.052
1N5527D	7.425	7.5	7.575	1.0	35	0.5	6.8	0.05	0.01	51	2.0	+0.058
1N5528D	8.118	8.2	8.282	1.0	40	0.5	7.5	0.05	0.01	46	4.0	+0.062
1N5529D	9.009	9.1	9.191	1.0	45	0.1	8.2	0.05	0.01	42	4.0	+0.068
1N5530D	9.900	10	10.10	1.0	60	0.05	9.1	0.10	0.01	38	4.0	+0.075
1N5531D	10.89	11	11.11	1.0	80	0.05	9.9	0.20	0.01	35	5.0	+0.075
1N5532D	11.88	12	12.12	1.0	90	0.05	10.8	0.20	0.01	32	10	+0.080
1N5533D	12.87	13	13.13	1.0	90	0.01	11.7	0.20	0.01	29	15	+0.080
1N5534D	13.86	14	14.14	1.0	100	0.01	12.6	0.20	0.01	27	20	+0.082
1N5535D	14.85	15	15.15	1.0	100	0.01	13.5	0.20	0.01	25	20	+0.082
1N5536D	15.84	16	16.16	1.0	100	0.01	14.4	0.20	0.01	24	20	+0.083
1N5537D	16.83	17	17.17	1.0	100	0.01	15.3	0.20	0.01	22	20	+0.085
1N5538D	17.82	18	18.18	1.0	100	0.01	16.2	0.20	0.01	21	20	+0.085

- Notes: 1. Measured with 10%, 60Hz AC superimposed on I_{ZT}.
2. Difference between V_Z @ I_{ZT} and I_{ZL}.
3. Measured from 1.0kHz to 3.0kHz.

R0 (3-August 2017)

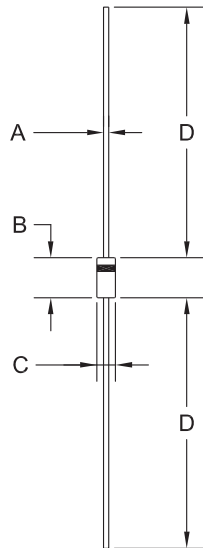
1N5518D THRU 1N5546D
SILICON ZENER DIODES
400mW, 3.3 THRU 33 VOLT
±1% TOLERANCE



ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^\circ\text{C}$) $V_F=1.1\text{V MAX @ } I_F=200\text{mA}$ (for all types)

Type	Zener Voltage $V_Z @ I_{ZT}$			Test Current	Maximum Zener Impedance (Note 1)	Maximum Reverse Current		Maximum Voltage Regulation (Note 2)		Maximum Regulator Current	Maximum Noise Density (Note 3)	Maximum Temperature Coefficient @ I_{ZT}
	MIN	NOM	MAX			I_R	@ V_R	$\Delta V_Z @ I_{ZL}$	I_{ZM}			
	V	V	V	I_{ZT}	$Z_{ZT} @ I_{ZT}$	μA	V	V	mA	mA	$\mu\text{V}/\sqrt{\text{Hz}}$	% / $^\circ\text{C}$
1N5539D	18.81	19	19.19	1.0	100	0.01	17.1	0.20	0.01	20	20	+0.086
1N5540D	19.80	20	20.20	1.0	100	0.01	18.0	0.20	0.01	19	20	+0.086
1N5541D	21.78	22	22.22	1.0	100	0.01	19.8	0.25	0.01	17	20	+0.087
1N5542D	23.76	24	24.24	1.0	100	0.01	21.6	0.30	0.01	16	20	+0.088
1N5543D	24.75	25	25.25	1.0	100	0.01	22.4	0.35	0.01	15	20	+0.090
1N5544D	27.72	28	28.28	1.0	100	0.01	25.2	0.40	0.01	14	20	+0.091
1N5545D	29.70	30	30.30	1.0	100	0.01	27.0	0.45	0.01	13	20	+0.091
1N5546D	32.67	33	33.33	1.0	100	0.01	29.7	0.50	0.01	12	20	+0.092

DO-35 CASE - MECHANICAL OUTLINE



R1

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.018	0.022	0.46	0.56
B	0.120	0.200	3.05	5.08
C	0.060	0.090	1.52	2.29
D	1.000	-	25.40	-

DO-35 (REV: R1)

MARKING: FULL PART NUMBER

R0 (3-August 2017)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms