

1N5518B THRU 1N5546B

SILICON ZENER DIODES
400mW, 3.3 THRU 33 VOLT
±5% TOLERANCE



DO-35 CASE



www.centra-semi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N5518B series silicon Zener diode is designed for low leakage, low current, and low noise applications.

MARKING: Devices shall either be marked with the prefix 'C' followed by the full part number or by the marking code in the Electrical Characteristics Table.

MAXIMUM RATINGS: (T_A=25°C)

Power Dissipation

Operating and Storage Junction Temperature

SYMBOL

P_D

T_J, T_{stg}

400

-65 to +200

UNITS

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	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}	Marking Code
	MIN	NOM	MAX	I _{ZT}	Z _{ZT} @ I _{ZT}	I _R @ V _R		ΔV _Z @ I _{ZL}		I _{ZM}	N _D @ 250μA	θV _Z	
	V	V	V	mA	Ω	μA	V	V	mA	mA	μV/√Hz	% / °C	
1N5518B	3.135	3.3	3.465	20	26	5.0	1.0	0.9	2.0	115	0.5	-0.070	C5518B
1N5519B	3.420	3.6	3.780	20	24	3.0	1.0	0.9	2.0	105	0.5	-0.065	C5519B
1N5520B	3.705	3.9	4.095	20	22	1.0	1.0	0.85	2.0	98	0.5	-0.060	C5520B
1N5521B	4.085	4.3	4.515	20	18	3.0	1.5	0.75	2.0	88	0.5	-0.055 +0.020	C5521B
1N5522B	4.465	4.7	4.935	10	22	2.0	2.0	0.60	1.0	81	0.5	-0.043 +0.025	C5522B
1N5523B	4.845	5.1	5.355	5.0	26	2.0	2.5	0.65	0.25	75	0.5	-0.030 +0.030	C5523B
1N5524B	5.320	5.6	5.880	3.0	30	2.0	3.5	0.30	0.25	68	1.0	-0.030 +0.045	C5524B
1N5525B	5.890	6.2	6.510	1.0	30	1.0	5.0	0.20	0.01	61	1.0	+0.050	C5525B
1N5526B	6.460	6.8	7.140	1.0	30	1.0	6.2	0.10	0.01	56	1.0	+0.052	C5526B
1N5527B	7.125	7.5	7.875	1.0	35	0.5	6.8	0.05	0.01	51	2.0	+0.058	C5527B
1N5528B	7.790	8.2	8.610	1.0	40	0.5	7.5	0.05	0.01	46	4.0	+0.062	C5528B
1N5529B	8.645	9.1	9.555	1.0	45	0.1	8.2	0.05	0.01	42	4.0	+0.068	C5529B
1N5530B	9.500	10	10.50	1.0	60	0.05	9.1	0.10	0.01	38	4.0	+0.075	C5530B
1N5531B	10.45	11	11.55	1.0	80	0.05	9.9	0.20	0.01	35	5.0	+0.075	C5531B
1N5532B	11.40	12	12.60	1.0	90	0.05	10.8	0.20	0.01	32	10	+0.080	C5532B
1N5533B	12.35	13	13.65	1.0	90	0.01	11.7	0.20	0.01	29	15	+0.080	C5533B
1N5534B	13.30	14	14.70	1.0	100	0.01	12.6	0.20	0.01	27	20	+0.082	C5534B
1N5535B	14.25	15	15.75	1.0	100	0.01	13.5	0.20	0.01	25	20	+0.082	C5535B
1N5536B	15.20	16	16.80	1.0	100	0.01	14.4	0.20	0.01	24	20	+0.083	C5536B
1N5537B	16.15	17	17.85	1.0	100	0.01	15.3	0.20	0.01	22	20	+0.085	C5537B
1N5538B	17.10	18	18.90	1.0	100	0.01	16.2	0.20	0.01	21	20	+0.085	C5538B

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.

R1 (6-December 2019)

1N5518B THRU 1N5546B

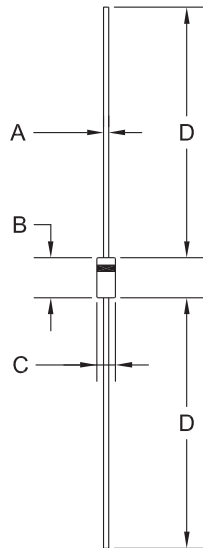
SILICON ZENER DIODES
400mW, 3.3 THRU 33 VOLT
±5% TOLERANCE



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}	Marking Code
	MIN	NOM	MAX	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$I_R @ V_R$		$\Delta V_Z @ I_{ZL}$		I_{ZM}	$N_D @ 250\mu\text{A}$	ΘV_Z	
	V	V	V	mA	Ω	μA	V	V	mA	mA	$\mu\text{V}/\sqrt{\text{Hz}}$	% / $^\circ\text{C}$	
1N5539B	18.05	19	19.95	1.0	100	0.01	17.1	0.20	0.01	20	20	+0.086	C5539B
1N5540B	19.00	20	21.00	1.0	100	0.01	18.0	0.20	0.01	19	20	+0.086	C5540B
1N5541B	20.90	22	23.10	1.0	100	0.01	19.8	0.25	0.01	17	20	+0.087	C5541B
1N5542B	22.80	24	25.20	1.0	100	0.01	21.6	0.30	0.01	16	20	+0.088	C5542B
1N5543B	23.75	25	26.25	1.0	100	0.01	22.4	0.35	0.01	15	20	+0.090	C5543B
1N5544B	26.60	28	29.40	1.0	100	0.01	25.2	0.40	0.01	14	20	+0.091	C5544B
1N5545B	28.50	30	31.50	1.0	100	0.01	27.0	0.45	0.01	13	20	+0.091	C5545B
1N5546B	31.35	33	34.65	1.0	100	0.01	29.7	0.50	0.01	12	20	+0.092	C5546B

DO-35 CASE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	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)

R1

R1 (6-December 2019)

www.centalsemi.com

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