

1N4678D THRU 1N4717D

SILICON ZENER DIODE
LOW LEVEL
1.8 VOLT THRU 43 VOLT
500mW, 1% TOLERANCE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N4678D series devices are silicon Zener diodes designed for applications requiring an extremely low operating current (50µA), and low leakage.

MARKING: FULL PART NUMBER



DO-35 CASE

MAXIMUM RATINGS: ($T_L=75^\circ\text{C}$)

Power Dissipation
Operating and Storage Junction Temperature

SYMBOL

P_D 500
 T_J, T_{stg} -65 to +200

UNITS

mW
°C

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$) $V_F=1.5\text{V MAX @ } I_F=100\text{mA}$ (for all types)

Type	Zener Voltage $V_Z @ I_{ZT}$			Test Current I_{ZT}	Maximum Reverse Leakage Current $I_R @ V_R$		Maximum Voltage Change* ΔV_Z	Maximum Regulator Current I_{ZM}
	MIN	NOM	MAX		μA	V		
	V	V	V	μA	V	V	mA	
1N4678D	1.782	1.8	1.818	50	7.5	1.0	0.70	120.0
1N4679D	1.980	2.0	2.020	50	5.0	1.0	0.70	110.0
1N4680D	2.178	2.2	2.222	50	4.0	1.0	0.75	100.0
1N4681D	2.376	2.4	2.424	50	2.0	1.0	0.80	95.0
1N4682D	2.673	2.7	2.727	50	1.0	1.0	0.85	90.0
1N4683D	2.970	3.0	3.030	50	0.8	1.0	0.90	85.0
1N4684D	3.267	3.3	3.333	50	7.5	1.5	0.95	80.0
1N4685D	3.564	3.6	3.636	50	7.5	2.0	0.95	75.0
1N4686D	3.861	3.9	3.939	50	5.0	2.0	0.97	70.0
1N4687D	4.257	4.3	4.343	50	4.0	2.0	0.99	65.0
1N4688D	4.653	4.7	4.747	50	10	3.0	0.99	60.0
1N4689D	5.049	5.1	5.151	50	10	3.0	0.97	55.0
1N4690D	5.544	5.6	5.656	50	10	4.0	0.96	50.0
1N4691D	6.138	6.2	6.262	50	10	5.0	0.95	45.0
1N4692D	6.732	6.8	6.868	50	10	5.1	0.90	35.0
1N4693D	7.425	7.5	7.575	50	10	5.7	0.75	31.8
1N4694D	8.118	8.2	8.282	50	1.0	6.2	0.50	29.0
1N4695D	8.613	8.7	8.787	50	1.0	6.6	0.10	27.6
1N4696D	9.009	9.1	9.191	50	1.0	6.9	0.08	26.2
1N4697D	9.900	10	10.10	50	1.0	7.6	0.10	24.8

* $\Delta V_Z = V_Z @ 100\mu\text{A}$ Minus $V_Z @ 10\mu\text{A}$

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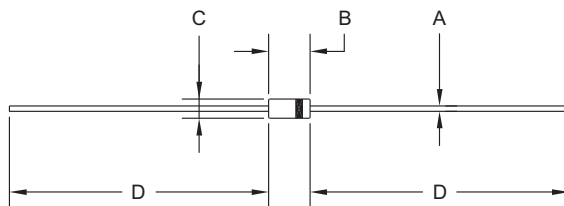


ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^\circ\text{C}$) $V_F=1.5\text{V MAX @ } I_F=100\text{mA}$ (for all types)

Type	Zener Voltage $V_Z @ I_{ZT}$			Test Current I_{ZT}	Maximum Reverse Leakage Current $I_R @ V_R$		Maximum Voltage Change* ΔV_Z	Maximum Regulator Current I_{ZM}
	MIN	NOM	MAX		μA	μA		
	V	V	V	μA	μA	V	mA	
1N4698D	10.89	11	11.11	50	0.05	8.4	0.11	21.6
1N4699D	11.88	12	12.12	50	0.05	9.1	0.12	20.4
1N4700D	12.87	13	13.13	50	0.05	9.8	0.13	19.0
1N4701D	13.86	14	14.14	50	0.05	10.6	0.14	17.5
1N4702D	14.85	15	15.15	50	0.05	11.4	0.15	16.3
1N4703D	15.84	16	16.16	50	0.05	12.1	0.16	15.4
1N4704D	16.83	17	17.17	50	0.05	12.9	0.17	14.5
1N4705D	17.82	18	18.18	50	0.05	13.6	0.18	13.2
1N4706D	18.81	19	19.19	50	0.05	14.4	0.19	12.5
1N4707D	19.80	20	20.20	50	0.01	15.2	0.20	11.9
1N4708D	21.78	22	22.22	50	0.01	16.7	0.22	10.8
1N4709D	23.76	24	24.24	50	0.01	18.2	0.24	9.9
1N4710D	24.75	25	25.25	50	0.01	19.0	0.25	9.5
1N4711D	26.73	27	27.27	50	0.01	20.4	0.27	8.8
1N4712D	27.72	28	28.28	50	0.01	21.2	0.28	8.5
1N4713D	29.70	30	30.30	50	0.01	22.8	0.30	7.9
1N4714D	32.67	33	33.33	50	0.01	25.0	0.33	7.2
1N4715D	35.64	36	36.36	50	0.01	27.3	0.36	6.6
1N4716D	38.61	39	39.39	50	0.01	29.6	0.39	6.1
1N4717D	42.57	43	43.43	50	0.01	32.6	0.43	5.5

* $\Delta V_Z = V_Z @ 100\mu\text{A}$ Minus $V_Z @ 10\mu\text{A}$

DO-35 CASE - MECHANICAL OUTLINE



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

R4 (31-July 2013)

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

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