1N4678 THRU 1N4717

SILICON ZENER DIODE
LOW LEVEL
500mW, 1.8 THRU 43 VOLT
5% TOLERANCE



DO-35 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N4678 series devices are silicon Zener diodes designed for applications requiring an extremely low operating current (50μA), and low leakage.

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_L=75°C)	**SYMBOL**		**UNITS**
Power Dissipation	P_D	500	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C

ELECTRICAL CHARACTERISTICS: (T_A=25°C) V_F=1.5V MAX @ I_F=100mA (for all types)

Type	Zener Voltage V_Z @ I_{ZT}			Test Current	Maximum Reverse Leakage Current		Maximum Voltage Change*	Maximum Regulator Current	Marking Code
	MIN	NOM	MAX	I_{ZT}	I_R @	V_R	ΔV_Z	I_{ZM}	
	V	V	V	μA	μA	V	V	mA	
1N4678	1.710	1.8	1.890	50	7.5	1.0	0.70	120.0	C4678
1N4679	1.900	2.0	2.100	50	5.0	1.0	0.70	110.0	C4679
1N4680	2.090	2.2	2.310	50	4.0	1.0	0.75	100.0	C4680
1N4681	2.280	2.4	2.520	50	2.0	1.0	0.80	95.0	C4681
1N4682	2.565	2.7	2.835	50	1.0	1.0	0.85	90.0	C4682
1N4683	2.850	3.0	3.150	50	0.8	1.0	0.90	85.0	C4683
1N4684	3.135	3.3	3.465	50	7.5	1.5	0.95	80.0	C4684
1N4685	3.420	3.6	3.780	50	7.5	2.0	0.95	75.0	C4685
1N4686	3.705	3.9	4.095	50	5.0	2.0	0.97	70.0	C4686
1N4687	4.085	4.3	4.515	50	4.0	2.0	0.99	65.0	C4687
1N4688	4.465	4.7	4.935	50	10	3.0	0.99	60.0	C4688
1N4689	4.845	5.1	5.355	50	10	3.0	0.97	55.0	C4689
1N4690	5.320	5.6	5.880	50	10	4.0	0.96	50.0	C4690
1N4691	5.890	6.2	6.510	50	10	5.0	0.95	45.0	C4691
1N4692	6.460	6.8	7.140	50	10	5.1	0.90	35.0	C4692
1N4693	7.125	7.5	7.875	50	10	5.7	0.75	31.8	C4693
1N4694	7.790	8.2	8.610	50	1.0	6.2	0.50	29.0	C4694
1N4695	8.265	8.7	9.135	50	1.0	6.6	0.10	27.6	C4695
1N4696	8.645	9.1	9.555	50	1.0	6.9	0.08	26.2	C4696
1N4697	9.500	10	10.50	50	1.0	7.6	0.10	24.8	C4697

* ΔV_Z=V_Z @ 100μA Minus V_Z @ 10μA

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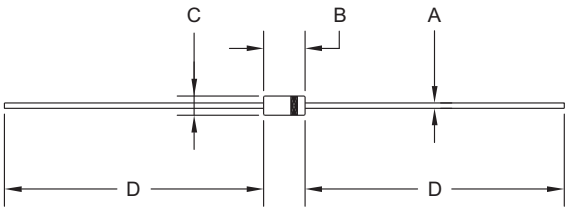
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ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C) V_F=1.5V MAX @ I_F=100mA (for all types)

Type	Zener Voltage V_Z @ I_{ZT}			Test Current	Maximum Reverse Leakage Current		Maximum Voltage Change*	Maximum Regulator Current	Marking Code
	MIN	NOM	MAX	I_{ZT}	I_R @ V_R		ΔV_Z	I_{ZM}	
	V	V	V	µA	µA	V	V	mA	
1N4698	10.45	11	11.55	50	0.05	8.4	0.11	21.6	C4698
1N4699	11.40	12	12.60	50	0.05	9.1	0.12	20.4	C4699
1N4700	12.35	13	13.65	50	0.05	9.8	0.13	19.0	C4700
1N4701	13.30	14	14.70	50	0.05	10.6	0.14	17.5	C4701
1N4702	14.25	15	15.75	50	0.05	11.4	0.15	16.3	C4702
1N4703	15.20	16	16.80	50	0.05	12.1	0.16	15.4	C4703
1N4704	16.15	17	17.85	50	0.05	12.9	0.17	14.5	C4704
1N4705	17.10	18	18.90	50	0.05	13.6	0.18	13.2	C4705
1N4706	18.05	19	19.95	50	0.05	14.4	0.19	12.5	C4706
1N4707	19.00	20	21.00	50	0.01	15.2	0.20	11.9	C4707
1N4708	20.90	22	23.10	50	0.01	16.7	0.22	10.8	C4708
1N4709	22.80	24	25.20	50	0.01	18.2	0.24	9.9	C4709
1N4710	23.75	25	26.25	50	0.01	19.0	0.25	9.5	C4710
1N4711	25.65	27	28.35	50	0.01	20.4	0.27	8.8	C4711
1N4712	26.60	28	29.40	50	0.01	21.2	0.28	8.5	C4712
1N4713	28.50	30	31.50	50	0.01	22.8	0.30	7.9	C4713
1N4714	31.35	33	34.65	50	0.01	25.0	0.33	7.2	C4714
1N4715	34.20	36	37.80	50	0.01	27.3	0.36	6.6	C4715
1N4716	37.05	39	40.95	50	0.01	29.6	0.39	6.1	C4716
1N4717	40.85	43	45.15	50	0.01	32.6	0.43	5.5	C4717

* ΔV_Z=V_Z @ 100µA Minus V_Z @ 10µA

DO-35 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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)

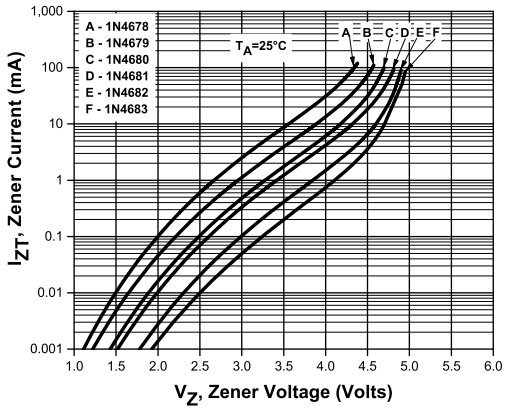
R6 (23-July 2018)

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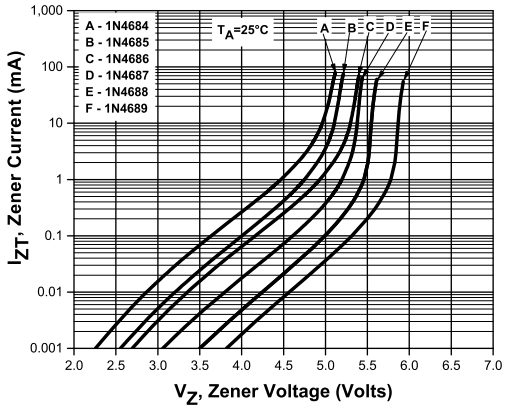
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TYPICAL ELECTRICAL CHARACTERISTICS

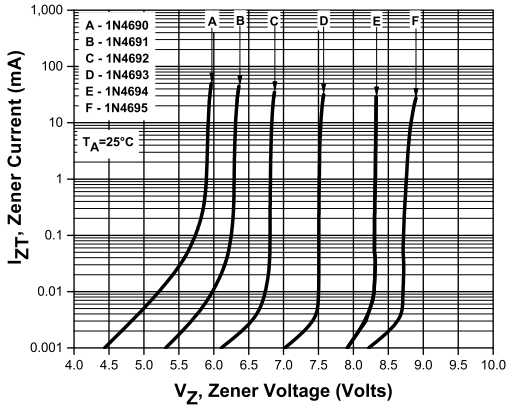
Zener Voltage, 1N4678-1N4683



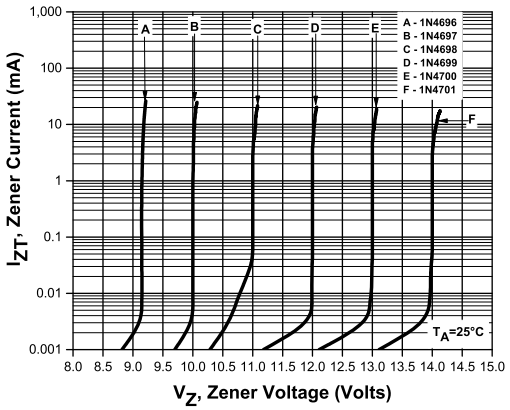
Zener Voltage, 1N4684-1N4689



Zener Voltage, 1N4690-1N4695



Zener Voltage, 1N4696-1N4701

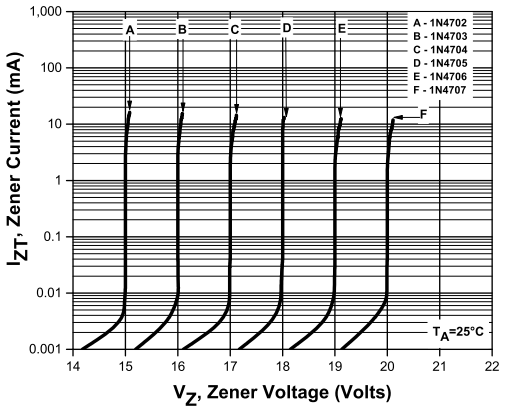


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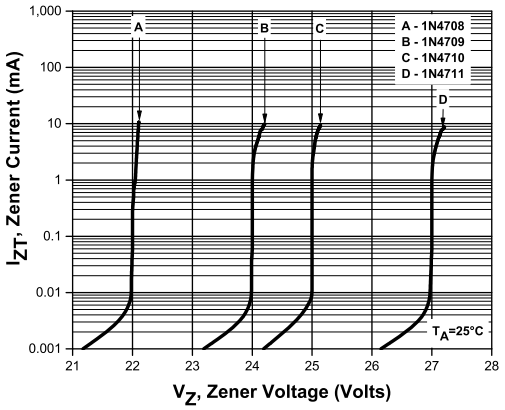
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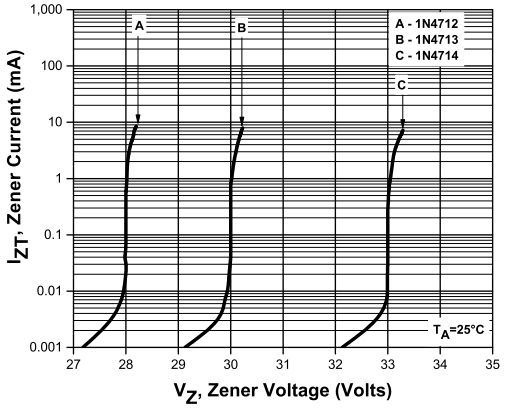
Zener Voltage, 1N4702-1N4707



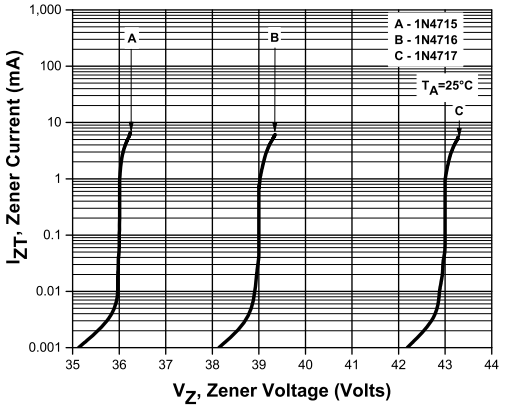
Zener Voltage, 1N4708-1N4711



Zener Voltage, 1N4712-1N4714



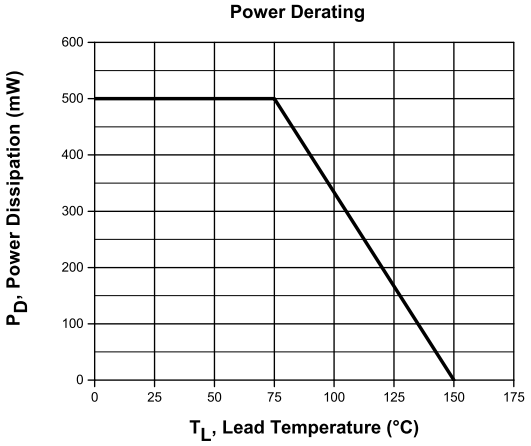
Zener Voltage, 1N4715-1N4717



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TYPICAL ELECTRICAL CHARACTERISTICS



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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