ZENER DIODES

American Power Devices offers a complete line of quality industrial, commercial and military silicon regulators and temperature-compensated references ranging from 200mW to 1W in DO-7, DO-35 and DO-41 cases.

All zener diodes are manufactured in double plug packages making the devices rugged and highly reliable. This technique results in zener diodes with low leakage current, uniform sharp reverse breakdown voltages and uniform heat dissipation.

Most series are available in standard voltage tolerances of 5, 10 and 20%. In most cases they may be ordered in tighter tolerances of 1 and 2%.

Applications for these zener diodes are in voltage regulator circuits, temperature compensating circuits, and in clipping, shunting and coupling applications.

Test measurement of nominal zener voltage (Vz) is performed under stabilized DC conditions, never as a pulse measurement. This insures that our nominal zener voltage specifications will comply with your requirements.

200mW — DO-35 Case

Type†	Nominal Zener Voltage	Test Current	Maximum‡ Dynamic Impedance	Typical Temperature Coefficient
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	T_C
	V	mA	Ω	%/°C
RD7A	7.1	10	15	.040
RD9A	8.75	10	10	.060
RD11A	10.5	5	25	.070
RD13A	12.8	5	35	.075
RD16A	15.8	5	55	.080
RD19A	19.0	5	80	.085
RD24A	23.5	5	150	.090
RD29A	28.5	2	250	.095

†Standard tolerances of 5, 10, and 20% are available
‡Zener impedance is derived from the 1kHz voltage created when AC current with RMS value of 10% of DC zener test current is superimposed on the test current.

250mW — DO-35 Case

Type†	Nominal Zener Voltage	Test Current	Maximum‡ Dynamic Impedance	Typical Temperature Coefficient
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	T_C
	V	mA	Ω	%/°C
1N703	3.45	10	55.0	−.07
1N704	4.1		45.0	−.06
1N705	4.85		35.0	±.03
1N706	5.8		20.0	.038
1N707	7.1		10.0	.050

†Standard tolerance of 10%
‡Zener impedance is derived from the 1kHz voltage created when AC current with RMS value of 10% of DC zener test current is superimposed on the test current.
The "A" version of this series has a 5mA test current.

250mW — DO-35 Case

Type†	Nominal Zener Voltage	Test Current	Maximum‡ Dynamic Impedance	Typical Temperature Coefficient
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	T_C
	V	mA	Ω	%/°C
1N708	5.6	25	2.6	.038
1N709	6.2		4.1	.038
1N710	6.8		4.7	.038
1N711	7.5		5.3	.048
1N712	8.2		6.0	.053
1N713	9.1	12	7.0	.060
1N714	10.0		8.0	.061
1N715	11.0		9.0	.065
1N716	12	12	10	.068
1N717	13		11	.070
1N718	15		13	.072
1N719	16		15	.074
1N720	18		17	.077
1N721	20	4	20	.081
1N722	22		24	.083
1N723	24		28	.085
1N724	27		35	.088
1N725	30		42	.089
1N726	33		50	.090
1N727	36.0	4	60	.093
1N728	39.0		70	.094
1N729	43.0		84	.095
1N730	47.0		98	.095
1N731	51.0		115	.096
1N732	56.0		140	.096
1N733	62.0	2	170	.097
1N734	68.0		200	.097
1N735	75.0		240	.098
1N736	82.0		280	.098

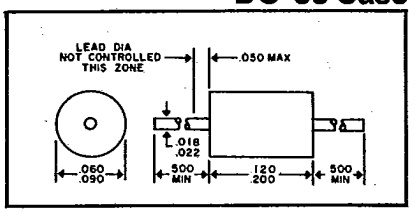
†Standard tolerances of 5, 10, and 20% are available — no suffix is ±10% tolerance, "A" suffix is ±5% tolerance, and "B" Suffix is ±20% tolerance. Consult factory for ±2% and ±1% tolerances.
‡Zener impedance is derived from the 1kHz voltage created when AC current with RMS value of 10% of DC zener test current is superimposed on the test current.

250mW — DO-35 Case

Type†	Nominal Zener Voltage	Test Current	Maximum‡ Dynamic Impedance	Typical Temperature Coefficient
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	T_C
	V	mA	Ω	%/°C
1N763-1	6.5	20	50	.040
1N763-2	7.0	10	7	
1N763-3	7.5	10	7	
1N764	8.75			
1N764-1	8.0			
1N764-2	8.5	10	12	.050
1N764-3	9.0			
1N764-4	9.5			
1N765	10.5			
1N765-1	10.0	5	45	.060
1N765-2	11.0			
1N766	12.75			
1N766-1	12.0	5	55	.070
1N766-2	13.0			
1N766-3	14.0			
1N767	15.75			
1N767-1	15.0	5	70	.080
1N767-2	16.0			
1N767-3	17.0			
1N768	19			
1N768-1	18	5	100	.080
1N768-2	19			
1N768-3	20			
1N769	23.5			
1N769-1	22.0	5	150	.090
1N769-2	24.0			
1N769-3	26.0			

†Standard types are ±10% tolerance, -1, -2, -3, and -4 suffixes denote ±5% tolerance.
‡Zener impedance is derived from the 1kHz voltage created when AC current with RMS value of 10% of DC zener test current is superimposed on the test current.

DO-35 Case



250mW — DO-35 Case

Type†	Nominal Zener Voltage	Test Current	Maximum‡ Dynamic Impedance	Typical Temperature Coefficient
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	T_C
	V	mA	Ω	%/°C
1N4099	6.8			—
1N4100	7.5			—
1N4101	8.2	0.25	200	—
1N4102	8.7			—
1N4103	9.1			—
1N4104	10.0			—
1N4105	11			—
1N4106	12			—
1N4107	13	0.25	200	—
1N4108	14			—
1N4109	15			—
1N4110	16		100	—
1N4111	17		100	—
1N4112	18	0.25	100	—
1N4113	19		150	—
1N4114	20		150	—
1N4115	22			—
1N4116	24			—
1N4117	25	0.25	150	—
1N4118	27			—
1N4119	28			—
1N4120	30			—
1N4121	33	0.25	200	—
1N4122	36			—
1N4123	39			—
1N4124	43		250	—
1N4125	47		250	—
1N4126	51	0.25	300	—
1N4127	56		300	—
1N4128	60		400	—
1N4129	62		500	—
1N4130	68	0.25	700	—
1N4131	75		700	—
1N4132	82		800	—

†Standard tolerance of ±5%.
‡Zener impedance is derived from the 1kHz voltage created when AC current with RMS value of 10% of DC zener test current is superimposed on the test current.

DO-35 Case