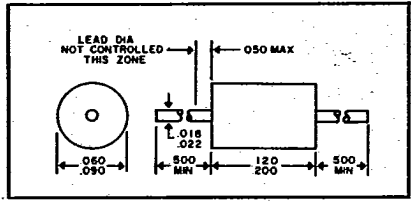


# ZENER DIODES

## DO-35 Case



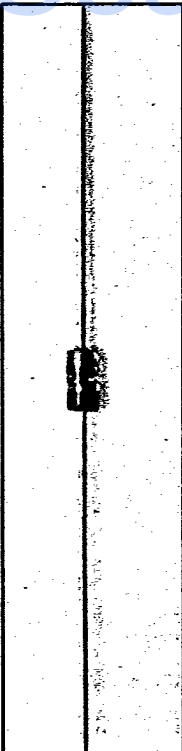
## 250mW

## DO-35 Case

Type†	Nominal Zener Voltage	Maximum Reverse Current	Test Voltage	Maximum Zener Current	Maximum‡ Voltage Change
	$V_Z @ I_{ZT} = 50 \mu A$	$I_R$	$V_R$	$I_{ZM}$	$\Delta V_Z$
	V	$\mu A$	V	mA	V
1N4683	3.0	0.8	1.0	85	0.90
1N4684	3.3	7.5	1.5	80	0.95
1N4685	3.6	7.5	2.0	75	0.95
1N4686	3.9	5.0	2.0	70	0.97
1N4687	4.3	4.0	2.0	65	0.99
1N4688	4.7		3.0	60	0.99
1N4689	5.1		3.0	55	0.97
1N4690	5.6	10	4.0	50	0.96
1N4691	6.2		5.0	45	0.95
1N4692	6.8		5.1	35	0.90
1N4693	7.5	10	5.7	31.8	0.75
1N4694	8.2	1.0	6.2	29.0	0.50
1N4695	8.7	1.0	6.6	27.4	0.10
1N4696	9.1	1.0	6.9	26.2	0.08
1N4697	10	1.0	7.6	24.8	0.10
1N4698	11		8.4	21.6	0.11
1N4699	12		9.1	20.4	0.12
1N4700	13	0.05	9.8	19.0	0.13
1N4701	14		10.6	17.5	0.14
1N4702	15		11.4	16.3	0.15
1N4703	16	0.05	12.1	15.4	0.16
1N4704	17	0.05	12.9	14.5	0.17
1N4705	18	0.05	13.6	13.2	0.18
1N4706	19	0.05	14.4	12.5	0.19
1N4707	20	0.01	15.2	11.9	0.20
1N4708	22		16.7	10.8	0.22
1N4709	24		18.2	9.9	0.24
1N4710	25	0.01	19.0	9.5	0.25
1N4711	27		20.4	8.8	0.27
1N4712	28		21.2	8.5	0.28
1N4713	30		22.8	7.9	0.30
1N4714	33	0.01	25.0	7.2	0.33
1N4715	36		27.3	6.6	0.36
1N4716	39		29.6	6.1	0.39
1N4717	43		32.6	5.5	0.43

†Standard tolerances of 5%  
‡Voltage change is equal to the difference between  $V_Z$  at  $100 \mu A$  and  $V_Z$  at  $10 \mu A$ .

## DO-35 Case



## 1W

## DO-41 Case

Type†	Zener Voltage	Test Current	Maximum‡ Dynamic Impedance	Forward Voltage
	$V_Z$	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$V_F @ I_F$
		mA	$\Omega$	
APD 3.3	3.3	76	15	1.35 @ 1A
APD 3.6	3.6	69		
APD 3.9	3.9	64		
APD 4.3	4.3	58		
APD 4.7	4.7	53	10	1.35 @ 1A
APD 5.1	5.1	49		
APD 5.6	5.6	45		
APD 6.2	6.2	41		
APD 6.8	6.8	37		
APD 7.5	7.5	34		
APD 8.2	8.2	31	10	1.35 @ 1A
APD 9.1	9.1	28		
APD10.0	10.1	25		
APD11.0	11.0	23		
APD12.0	12.0	21		
APD13.0	13.0	19		



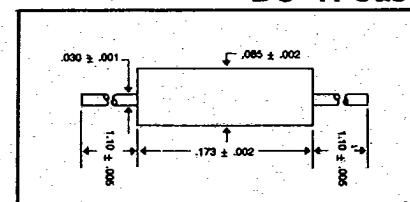
ZENER DIODES

1W

DO-41 Case

DO-41 Case

Type†	Zener Voltage V <sub>Z</sub>	Test Current I <sub>ZT</sub> mA	Maximum‡ Dynamic Impedance Z <sub>zT</sub> @ I <sub>ZT</sub> Ω	Forward Voltage V <sub>F</sub> @ I <sub>F</sub>
APD15.0 APD16.0 APD18.0 APD20.0	15.0 16.0 18.0 20.0	17 15.5 14 12.5	25	1.35 @ 1A
APD22.0 APD24.0 APD27.0 APD30.0	22.0 24.0 27.0 30.0	11.5 10.5 9.5 8.5	40	1.35 @ 1A
APD33.0 APD36.0 APD39.0	33.0 36.0 39.0	7.5 7.0 6.5	60	1.35 @ 1A



†Standard tolerance of 5, 10, and 20% are available — no suffix is ±20% tolerance, "A" suffix is ±10% tolerance, and "B" suffix is ±5.0% 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.

1W

DO-41 Case

Type†	Nominal Zener Voltage V <sub>Z</sub> @ I <sub>ZT</sub> V	Test Current I <sub>ZT</sub> mA	Maximum‡ Dynamic Impedance Z <sub>zT</sub> @ I <sub>ZT</sub> Ω	Typical Temperature Coefficient T <sub>c</sub> %/°C
1N4728 1N4729 1N4730 1N4731	3.3 3.6 3.9 4.3	76 69 64 58	10.0 10.0 9.0 9.0	— — — —
1N4732 1N4733 1N4734 1N4735	4.7 5.1 5.6 6.2	53 49 45 41	8.0 7.0 5.0 2.0	— — — —
1N4736 1N4737 1N4738 1N4739 1N4740	6.8 7.5 8.2 9.1 10.0	37 34 31 28 25	3.5 4.0 4.5 5.0 7.0	— — — — —
1N4741 1N4742 1N4743 1N4744 1N4745	11 12 13 15 16	23.0 21.0 19.0 17.0 15.5	8 9 10 14 16	— — — — —
1N4746 1N4747 1N4748 1N4749 1N4750	18 20 22 24 27	14.0 12.5 11.5 10.5 9.5	20 22 23 25 35	— — — — —
1N4751 1N4752 1N4753 1N4754 1N4755 1N4756	30 33 36 39 43 47	8.5 7.5 7 6.5 6 5.5	40 45 50 60 70 80	— — — — — —
1N4757 1N4758 1N4759 1N4760 1N4761 1N4762	51 56 62 68 75 82	5 4.5 4 3.7 3.3 3	95 110 125 150 175 200	— — — — — —

†Standard types are ±10% tolerance, suffix "A" denotes ±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-41 Case

