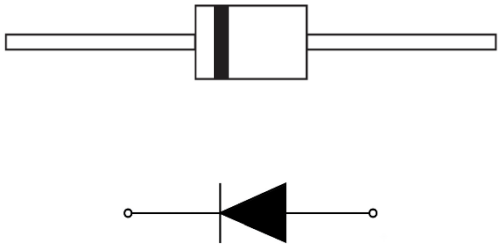
DESCRIPTION

The 1N4727 ~ 1N4761 are available in DO-41 package.

ORDERING INFORMATION

Package Type	Part Number	
DO-41	1N4727	1N4745
	1N4728	1N4746
	1N4729	1N4747
	1N4730	1N4748
	1N4731	1N4749
	1N4732	1N4750
	1N4733	1N4751
	1N4734	1N4752
	1N4735	1N4753
	1N4736	1N4754
	1N4737	1N4755
	1N4738	1N4756
	1N4739	1N4757
	1N4740	1N4758
	1N4741	1N4759
	1N4742	1N4760
	1N4743	1N4761
	1N4744	
Note	SPQ: 1000pcs/Box	
AiT provides all RoHS Compliant Products		

PIN DESCRIPTION



PIN#	DESCRIPTION
1	CATHODE
2	ANODE

ABSOLUTE MAXIMUM RATING

T_C = 25°C, unless otherwise specified.

P_{tot}, Power Dissipation	1W
T_J, Junction Temperature	175℃
T_{STG}, Storage Temperature Range	-65~ +175℃

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

Thermal Characteristics

Parameter	Symbol	Max	Unit
Thermal Resistance Junction to Ambient Air	R_{JA}	150	℃/W

Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature

ELECTRICAL CHARACTERISTICS

T_A = 25°C, (V_F max : 1.2V at I_F =200 mA)

Part Number	Zener Voltage Range (3)				Dynamic Resistance (1)			Reverse Current		Maximum Surge Current (4)	Maximum Regulator Current (4)	Temperature coefficient at IZT
	Vznom	VZT		at IZT	ZZT	ZZK	at IZK	IR	at VR			
	(V)	Min. (V)	Max. (V)	(mA)	Min. (Ω)	Max. (Ω)	(mA)	Max. (uA)	(V)	IZSM (mA)	IZM (mA)	%/°C
1N4727	3	2.85	3.15	83	10	400	1	150	1	1375	275	-0.08 to -0.05
1N4728	3.3	3.14	3.47	76	10	400	1	150	1	1375	275	-0.08 to -0.05
1N4729	3.6	3.42	3.78	69	10	400	1	100	1	1280	252	-0.08 to -0.05
1N4730	3.9	3.71	4.1	64	9	400	1	100	1	1190	234	-0.07 to -0.02
1N4731	4.3	4.09	4.52	58	9	400	1	50	1	1070	217	-0.07 to -0.01
1N4732	4.7	4.47	4.94	53	8	500	1	10	1	970	193	-0.03 to +0.04
1N4733	5.1	4.85	5.36	49	7	550	1	10	1	890	178	-0.01 to +0.04
1N4734	5.6	5.32	5.88	45	5	600	1	10	2	810	162	0.10 to +0.045
1N4735	6.2	5.89	6.51	41	2	700	1	10	3	730	146	+0.01 to +0.055
1N4736	6.8	6.46	7.14	37	3.5	700	1	10	4	660	133	+0.015 to +0.06
1N4737	7.5	7.13	7.88	34	4	700	0.5	10	5	605	121	+0.02 to +0.065
1N4738	8.2	7.79	8.61	31	4.5	700	0.5	10	6	550	110	0.03 to 0.07
1N4739	9.1	8.65	9.56	28	5	700	0.5	10	7	500	100	0.035 to 0.075
1N4740	10	9.5	10.5	25	7	700	0.25	10	7.6	454	91	0.04 to 0.08
1N4741	11	10.45	11.55	23	8	700	0.25	5	8.4	414	83	0.045 to 0.08
1N4742	12	11.4	12.6	21	9	700	0.25	5	9.1	380	76	0.045 to 0.085
1N4743	13	12.35	13.65	19	10	700	0.25	5	9.9	344	69	0.05 to 0.085
1N4744	15	14.25	15.75	17	14	700	0.25	5	11.4	304	61	0.055 to 0.09
1N4745	16	15.2	16.8	15.5	16	700	0.25	5	12.2	285	57	0.055 to 0.09
1N4746	18	17.1	18.9	14	20	750	0.25	5	13.7	250	50	0.06 to 0.09
1N4747	20	19	21	12.5	22	750	0.25	5	15.2	225	45	0.06 to 0.09
1N4748	22	20.9	23.1	11.5	23	750	0.25	5	16.7	205	41	0.06 to 0.095
1N4749	24	22.8	25.2	10.5	25	750	0.25	5	18.2	190	38	0.06 to 0.095
1N4750	27	25.65	28.35	8.5	35	750	0.25	5	20.8	170	34	0.06 to 0.095
1N4751	30	28.5	31.5	8.5	40	1000	0.25	5	22.8	150	30	0.06 to 0.095
1N4752	33	31.35	34.65	7.5	45	1000	0.25	5	25.1	135	27	0.06 to 0.095
1N4753	36	34.2	37.8	7	50	1000	0.25	5	27.4	125	25	0.06 to 0.095
1N4754	39	37.05	40.95	6.5	60	1000	0.25	5	29.7	115	23	0.06 to 0.095
1N4755	43	40.85	45.15	6	70	1500	0.25	5	32.7	110	22	0.06 to 0.095
1N4756	47	44.65	49.35	5.5	80	1500	0.25	5	35.8	95	19	0.06 to 0.095
1N4757	51	48.45	53.55	5	95	1500	0.25	5	38.8	90	18	0.06 to 0.095
1N4758	56	53.2	58.8	4.5	110	2000	0.25	5	42.6	80	16	0.06 to 0.095
1N4759	62	58.9	65.1	4	125	2000	0.25	5	47.1	70	14	0.06 to 0.095
1N4760	68	64.6	71.4	3.7	150	2000	0.25	5	51.7	65	13	0.06 to 0.095
1N4761	75	71.25	78.75	3.3	175	2000	0.25	5	56	60	12	0.06 to 0.095

1) The dynamic resistance is derived from the 60 Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener Current (IZT or IZK) is superimposed on IZT or IZK. Dynamic resistance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

2) Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

3) Tested with pulses tp = 20 ms.

4) The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current IZT.

TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Zener Characteristics Curve

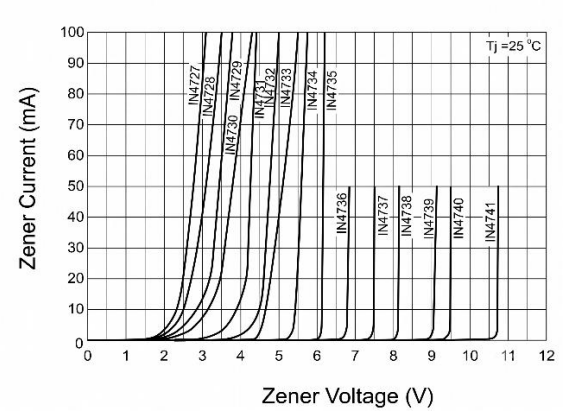


Fig 2. Zener Characteristics Curve

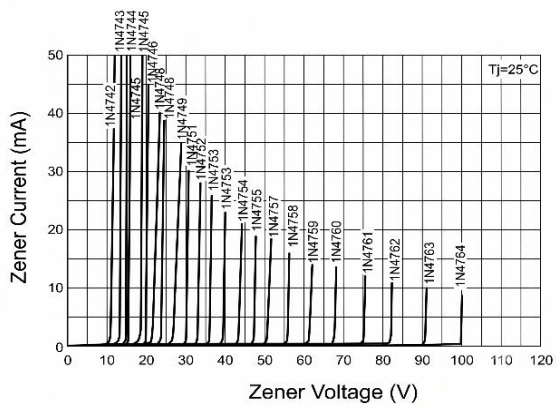


Fig 3. Junction Characteristics vs Zener Voltage

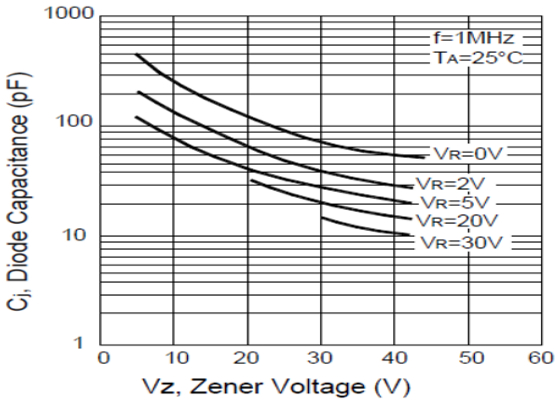


Fig 4. Typical Zener Impedance vs. Zener Voltage

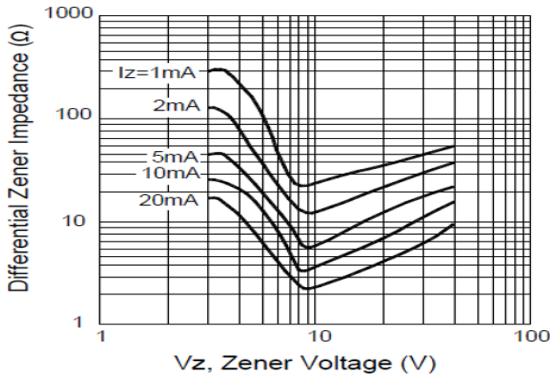
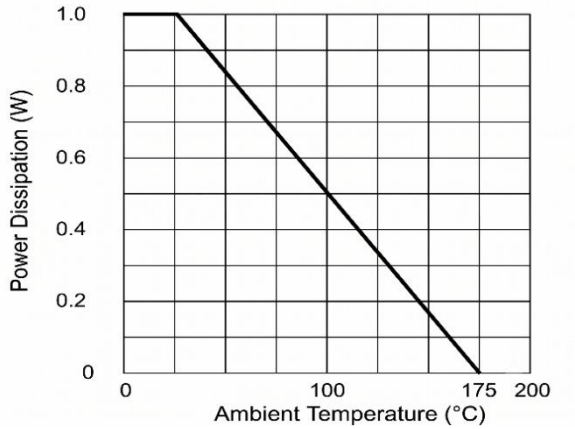
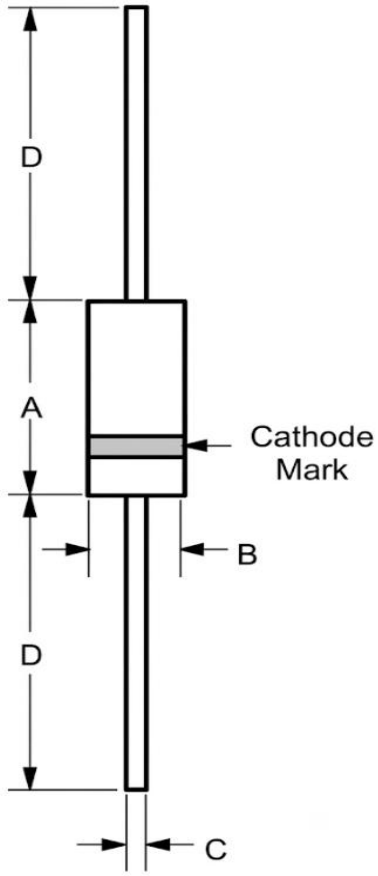


Fig 5. Power Derating Curve



PACKAGE INFORMATION

Dimension in DO-41 Package (Unit: mm)



SYMBOL	MILLIMETERS	
	MIN	MAX
A	4.100	5.200
B	2.000	2.700
C	0.700	0.900
D	25.400	-

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