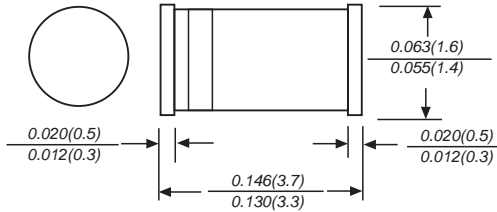


DL5221B THRU DL5267B

ZENER DIODES

Zener Voltage: 2.4-75V Peak Pulse Power: 500mW

LL-34



Dimensions in inches and (millimeters)

FEATURE

- ◆ Low zener impedance
- ◆ Low regulation factor
- ◆ High Stability and High Reliability
- ◆ Power Dissipation of 500mW

MECHANICAL DATA

Case: LL-34 Glass Case

Polarity: Color band denotes cathode end

Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Power Dissipation	Pd	500 ¹⁾	mW
Operating junction temperature	Tj	175	°C
Storage temperature range	Ts	-65-+175	°C

1) Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

型号 TYPE	VZ(V)			IZ(mA)	ZZT(Ω)		ZZK(Ω)		IR(μA)	
	Nom.	MIN	MAX		MAX	IZT(mA)	MAX	IZK(mA)	MAX	VR(V)
DL5221B	2.4	2.280	2.520	20.0	30.0	20.0	1200	0.25	100.0	1.0
DL5222B	2.5	2.375	2.625	20.0	30.0	20.0	1250	0.25	100.0	1.0
DL5223B	2.7	2.565	2.835	20.0	30.0	20.0	1300	0.25	75	1.0
DL5224B	2.8	2.660	2.940	20.0	30.0	20.0	1400	0.25	75	1.0
DL5225B	3	2.850	3.150	20.0	29.0	20.0	1600	0.25	50	1.0
DL5226B	3.3	3.135	3.465	20.0	28.0	20.0	1600	0.25	25	1.0
DL5227B	3.6	3.420	3.780	20.0	24.0	20.0	1700	0.25	15	1.0
DL5228B	3.9	3.705	4.095	20.0	23.0	20.0	1900	0.25	10	1.0
DL5229B	4.3	4.085	4.515	20.0	22.0	20.0	2000	0.25	5.0	1.0
DL5230B	4.7	4.465	4.935	20.0	19.0	20.0	1900	0.25	5.0	2.0
DL5231B	5.1	4.845	5.355	20.0	17.0	20.0	1600	0.25	5.0	2.0
DL5232B	5.6	5.320	5.880	20.0	11.0	20.0	1600	0.25	5.0	3.0
DL5233B	6	5.700	6.300	20.0	7.0	20.0	1600	0.25	5.0	3.5
DL5234B	6.2	5.890	6.510	20.0	7.0	20.0	1000	0.25	5.0	4.0
DL5235B	6.8	6.460	7.140	20.0	5.0	20.0	750	0.25	3.0	5.0
DL5236B	7.5	7.125	7.875	20.0	6.0	20.0	500	0.25	3	6.0
DL5237B	8.2	7.790	8.610	20.0	8.0	20.0	500	0.25	3	6.5
DL5238B	8.7	8.265	9.135	20.0	8.0	20.0	600	0.25	3	6.5

ELECTRICAL CHARACTERISTICS (at TA=25°C unless otherwise noted)

型号 TYPE	VZ(V)			IZ(mA)	ZZT(Ω)		ZZK(Ω)		IR(μA)	
	Nom.	MIN	MAX		MAX	IZT(mA)	MAX	IZK(mA)	MAX	VR(V)
DL5239B	9.1	8.645	9.555	20.0	10.0	20.0	600	0.25	3	7.0
DL5240B	10	9.500	10.500	20.0	17.0	20.0	600	0.25	3	8.0
DL5241B	11	10.450	11.550	20.0	22.0	20.0	600	0.25	2	8.4
DL5242B	12	11.400	12.600	20.0	30.0	20.0	600	0.25	1	9.1
DL5243B	13	12.350	13.650	9.5	13.0	9.5	600	0.25	0.5	9.9
DL5244B	14	13.300	14.700	9.0	15.0	9.0	600	0.25	0.1	10.0
DL5245B	15	14.250	15.750	8.5	16.0	8.5	600	0.25	0.1	11.0
DL5246B	16	15.200	16.800	7.8	17.0	7.8	600	0.25	0.1	12.0
DL5247B	17	16.150	17.850	7.4	19.0	7.4	600	0.25	0.1	13.0
DL5248B	18	17.100	18.900	7.0	21.0	7.0	600	0.25	0.1	14.0
DL5249B	19	18.050	19.950	6.6	23.0	6.6	600	0.25	0.1	14.0
DL5250B	20	19.000	21.000	6.2	25.0	6.2	600	0.25	0.1	15.0
DL5251B	22	20.900	23.100	5.6	29.0	5.6	600	0.25	0.1	17.0
DL5252B	24	22.800	25.200	5.2	33.0	5.2	600	0.25	0.1	18.0
DL5253B	25	23.750	26.250	5.0	35.0	5.0	600	0.25	0.1	19.0
DL5254B	27	25.650	28.350	4.6	41.0	4.6	600	0.25	0.1	21.0
DL5255B	28	26.600	29.400	4.5	44.0	4.5	600	0.25	0.1	21.0
DL5256B	30	28.500	31.500	4.2	49.0	4.2	600	0.25	0.1	23.0
DL5257B	33	31.350	34.650	3.8	58.0	3.8	700	0.25	0.1	25.0
DL5258B	36	34.200	37.800	3.4	70.0	3.4	700	0.25	0.1	27.0
DL5259B	39	37.050	40.950	3.2	80.0	3.2	800	0.25	0.1	30.0
DL5260B	43	40.850	45.150	3.0	93.0	3.0	900	0.25	0.1	33.0
DL5261B	47	44.650	49.350	2.7	105.0	2.7	100	0.25	0.1	36.0
DL5262B	51	48.450	53.550	2.5	125.0	2.5	1100	0.25	0.1	39.0
DL5263B	56	53.200	58.800	2.2	150.0	2.2	1300	0.25	0.1	43.0
DL5264B	60	57.000	63.000	2.1	170.0	2.1	1400	0.25	0.1	46
DL5265B	62	58.900	65.100	2.0	185.0	2.0	1400	0.25	0.1	47
DL5266B	68	64.600	71.400	1.8	230.0	1.8	1600	0.25	0.1	52
DL5267B	75	71.250	78.750	1.7	270.0	1.7	1700	0.25	0.1	56

Notes:

- 1) Standard Zener voltage tolerance is $\pm 20\%$. Add suffix "A" for $\pm 10\%$ tolerance, suffix "B" for $\pm 5\%$ tolerance and suffix "C" for $\pm 2\%$ tolerance. Other tolerance, non standard and higher Zener voltages are upon request.
- 2) The Zener Impedance 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. Zener Impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.
- 3) Valid provided that electrodes are kept at ambient temperature.
- 4) Measured under thermal equilibrium and DC test conditions.
- 5) Tested with pulses $t_p = 20$ ms.
- 6) $V_F(\text{Max}) = 1.10V @ I_F = 200mA$

RATINGS AND CHARACTERISTIC CURVES DL52 SERIES

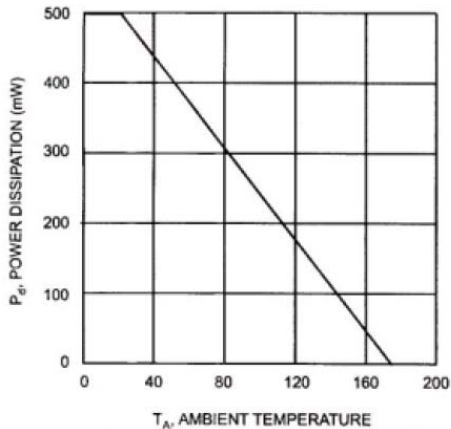


Fig. 1 Power Dissipation vs Ambient Temperature

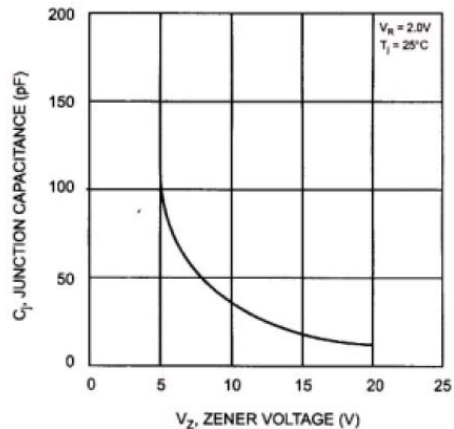


Fig. 2 Junction Capacitance vs Zener Voltage

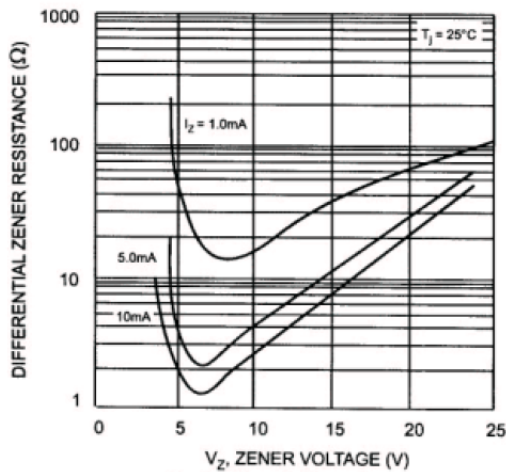


Fig. 3 Differential Zener Impedance

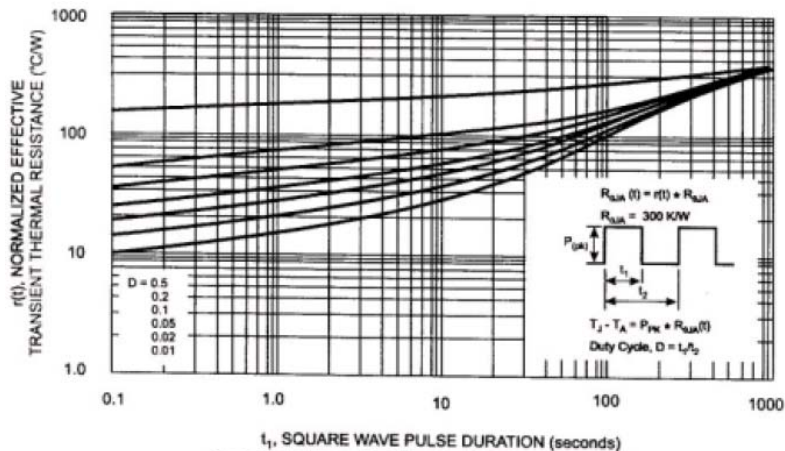


Fig. 4 Typical Normalized Transient Thermal Impedance Curves