Micro Commercial Components

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DL5518B THRU DL5546B

500mW Silicon Zener Diodes

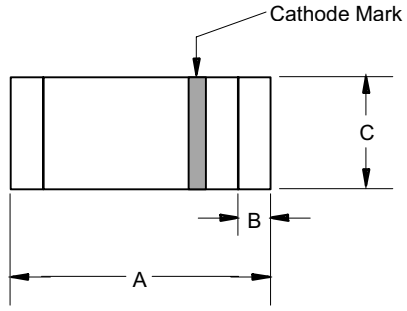
Features

- Zener Voltage 3.3V-33V
- Low Reverse Leakage Characteristic
- Metallurgically Bonded
- High Reliability
- Surface Mount Application

Mechanical Data

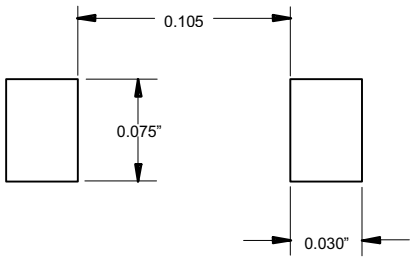
- Case: Double slug type, hermetically sealed glass
- Polarity: Cathode indicated by polarity band

MINIMELF



DIMENSION					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.134	.142	3.40	3.60	
B	.008	.016	0.20	0.40	
C	.055	.059	1.40	1.50	

SUGGESTED SOLDER PAD LAYOUT



Maximum Ratings

	Symbol	Value	Units
DC Power Dissipation @T_{EC}=125°C	P_D	500	mW
Junction Temperature	T_J	-65 to125	℃
Storage Temperature Range	T_{STG}	-65 to125	℃
Power Dissipation aboveT_{EC}=125°C	P_D	10	mW/℃

Electrical Characteristics @ 25◦C Unless Otherwise Specified

	Symbol	Maximum	Unit
Max. Forward Voltage @ I_F=200mA	V_F	1.1	V

DL5518B-DL5546B

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Type Number (Note 1)	Nominal Zener Voltage Vz@Izt (Note 2)	Zener Test Current Izt	Max. Zener Impedence B-C-D Suffix Zzt@Izt (Note 3)	Max. Reverse Leakage Current			B-C-D Suffix Max. DC Zener Current Izm	Regulation Factor Current DVz (Note5)	Low Vz Current Izl
				IR(Note 4)	VR=Volts				
	Volts	mA	Ohms		Non&A-Suffix	B-C-D Suffix	mA	Volts	mA
DL5518B	3.3	20	26	5	0.9	1	115	0.9	2
DL5519B	3.6	20	24	3	0.9	1	105	0.9	2
DL5520B	3.9	20	22	1	0.9	1	98	0.85	2
DL5521B	4.3	20	18	3	1	1.5	88	0.75	2
DL5522B	4.7	10	22	2	1.5	2	81	0.6	1
DL5523B	5.1	5	26	2	2	2.5	75	0.65	0.25
DL5524B	5.6	3	30	2	3	3.5	68	0.3	0.25
DL5525B	6.2	1	30	1	4.5	5	61	0.2	0.01
DL5526B	6.8	1	30	1	5.5	6.2	56	0.1	0.01
DL5527B	7.5	1	35	0.5	6	6.8	51	0.05	0.01
DL5528B	8.2	1	40	0.5	6.5	7.5	46	0.05	0.01
DL5529B	9.1	1	45	0.1	7	8.2	42	0.05	0.01
DL5530B	10	1	60	0.05	8	9.1	38	0.1	0.01
DL5531B	11	1	80	0.05	9	9.9	35	0.2	0.01
DL5532B	12	1	90	0.05	9.5	10.8	32	0.2	0.01
DL5533B	13	1	90	0.01	10.5	11.7	29	0.2	0.01
DL5534B	14	1	100	0.01	11.5	12.6	27	0.2	0.01
DL5535B	15	1	100	0.01	12.5	13.5	25	0.2	0.01
DL5536B	16	1	100	0.01	13	14.4	24	0.2	0.01
DL5537B	17	1	100	0.01	14	15.3	22	0.2	0.01
DL5538B	18	1	100	0.01	15	16.2	21	0.2	0.01
DL5539B	19	1	100	0.01	16	17.1	20	0.2	0.01
DL5540B	20	1	100	0.01	17	18	19	0.2	0.01
DL5541B	22	1	100	0.01	18	19.8	17	0.25	0.01
DL5542B	24	1	100	0.01	20	21.6	16	0.3	0.01
DL5543B	25	1	100	0.01	21	22.4	15	0.35	0.01
DL5544B	28	1	100	0.01	23	25.2	14	0.4	0.01
DL5545B	30	1	100	0.01	24	27	13	0.45	0.01
DL5546B	33	1	100	0.01	28	29.7	12	0.5	0.01

NOTE 1 No Suffix type numbers are ±20% with guaranteed limits for only V_Z, I_R, and V_F.Units with "A" suffix are ±10% with guaranteed limits for VZ, IR, and VF. Units with guaranteed limits for all six parameters are indicated by a "B" suffix for ±5.0% units,"C" suffix for±2.0% and "D" suffix for ±1.0%.

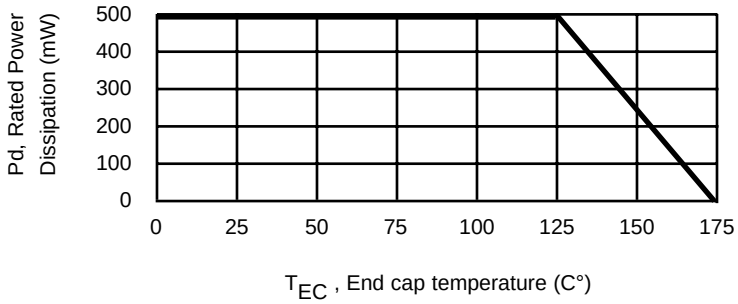
NOTE 2 Zener voltage is measured with the device junction in thermal equilibrium at an ambient temperature of 25°C ± 3°C temperature of 25°C +

NOTE 3 Zener impedance is derived by superimposing on 1_{ZT} A 60Hz rms a.c. current equal to 10% of1_{ZT}.

NOTE 4 Reverse leakage currents are measured at V_R as shown on the table.

NOTE 5 ΔV_Z is the maximum difference between V_Z at I_{ZT} and V_Z at I_{ZL} measured with the device junction in thermal equilibrium.

FIGURE 1



POWER DERATING CURVE

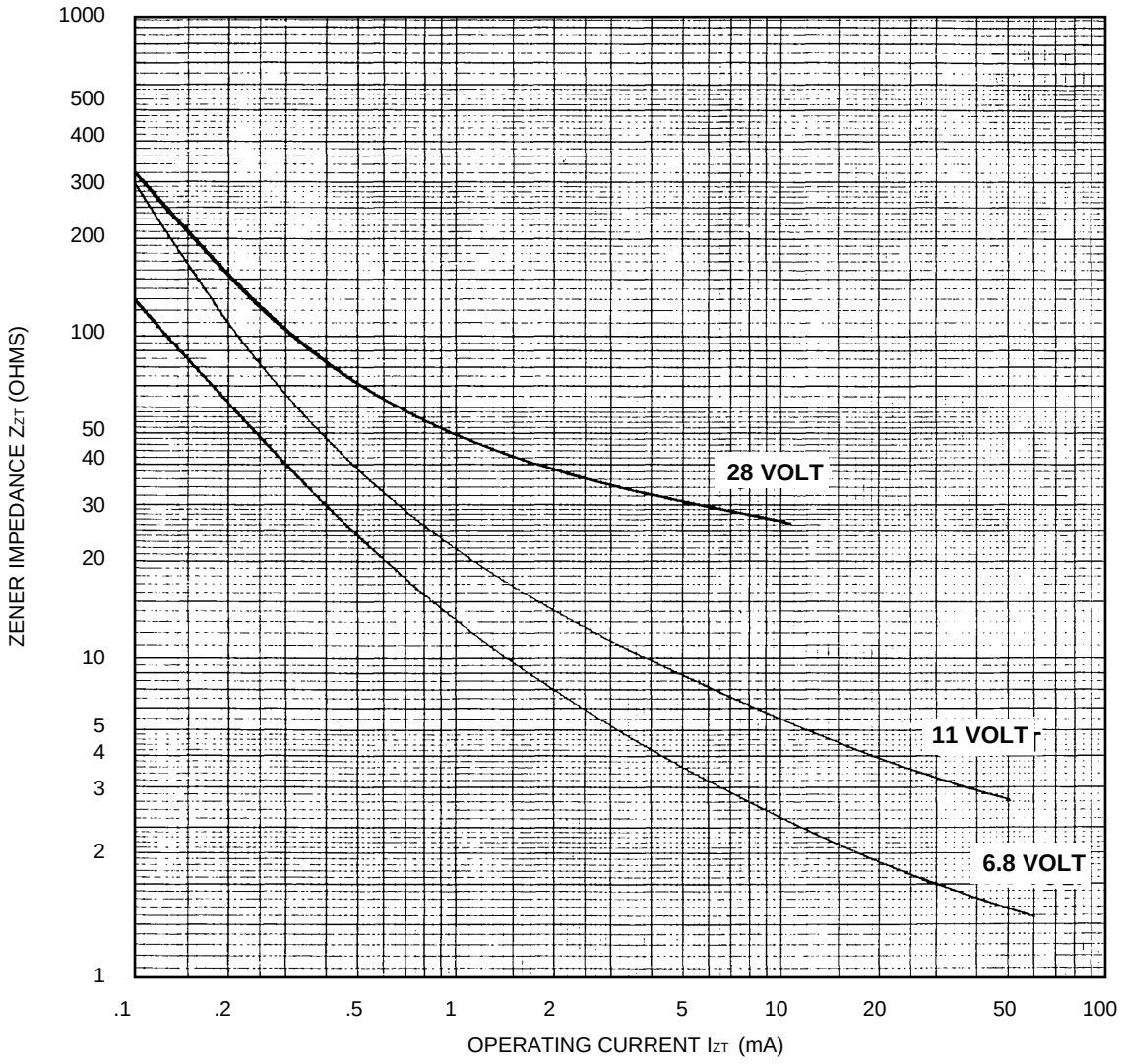


FIGURE 2

ZENER IMPEDANCE VS. OPERATING CURRENT

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