

Zibo Seno Electronic Engineering Co., Ltd.



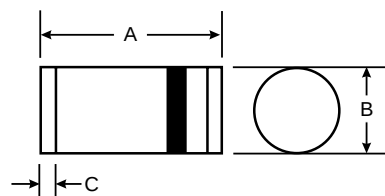
LL5221B~LL5271B



500mW SURFACE MOUNT ZENER DIODE

Features

- Planar Die Construction
- Sealed Glass Case
- Ideally Suited for Automated Insertion
- 2.4V - 75V Nominal Zener Voltages



Mechanical Data

- Case: MiniMELF, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Approx. Weight: 0.05 grams
- **Lead Free: For RoHS / Lead Free Version**

MiniMELF		
Dim	Min	Max
A	3.30	3.70
B	1.30	1.60
C	0.28	0.50
All Dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 2)	P_d	500	mW
Forward Voltage @ $I_F = 200\text{mA}$	V_F	1.1	V
Thermal Resistance, Junction to Ambient Air (Note 2)	$R_{\theta JA}$	300	K/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +175	$^\circ\text{C}$

- Notes:
1. Tested with Pulses, $t_p = 20\text{ms}$.
 2. Valid provided that Electrodes are kept at Ambient Temperature.

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Electrical Characteristics @ T_A = 25°C unless otherwise specified

Type	V _{Znom} ¹⁾	I _{ZT}	for	r _{zT}	r _{zjk}	at	I _{ZK}	I _R	at	V _R	TK _{VZ}
	V	mA		Ω	Ω		mA	μA		V	%/K
LL5221B	2.4	20		<30	<1200		0.25	<100		1.0	<-0.085
LL5222B	2.5	20		<30	<1250		0.25	<100		1.0	<-0.085
LL5223B	2.7	20		<30	<1300		0.25	<75		1.0	<-0.080
LL5224B	2.8	20		<30	<1400		0.25	<75		1.0	<-0.080
LL5225B	3.0	20		<29	<1600		0.25	<50		1.0	<-0.075
LL5226B	3.3	20		<28	<1600		0.25	<25		1.0	<-0.070
LL5227B	3.6	20		<24	<1700		0.25	<15		1.0	<-0.065
LL5228B	3.9	20		<23	<1900		0.25	<10		1.0	<-0.060
LL5229B	4.3	20		<22	<2000		0.25	<5		1.0	<+0.055
LL5230B	4.7	20		<19	<1900		0.25	<5		2.0	<+0.030
LL5231B	5.1	20		<17	<1600		0.25	<5		2.0	<+0.030
LL5232B	5.6	20		<11	<1600		0.25	<5		3.0	<+0.038
LL5233B	6.0	20		<7	<1600		0.25	<5		3.5	<+0.038
LL5234B	6.2	20		<7	<1000		0.25	<5		4.0	<+0.045
LL5235B	6.8	20		<5	<750		0.25	<3		5.0	<+0.050
LL5236B	7.5	20		<6	<500		0.25	<3		6.0	<+0.058
LL5237B	8.2	20		<8	<500		0.25	<3		6.5	<+0.062
LL5238B	8.7	20		<8	<600		0.25	<3		6.5	<+0.065
LL5239B	9.1	20		<10	<600		0.25	<3		7.0	<+0.068
LL5240B	10	20		<17	<600		0.25	<3		8.0	<+0.075
LL5241B	11	20		<22	<600		0.25	<2		8.4	<+0.076
LL5242B	12	20		<30	<600		0.25	<1		9.1	<+0.077
LL5243B	13	9.5		<13	<600		0.25	<0.5		9.9	<+0.079
LL5244B	14	9.0		<15	<600		0.25	<0.1		10	<+0.082
LL5245B	15	8.5		<16	<600		0.25	<0.1		11	<+0.082
LL5246B	16	7.8		<17	<600		0.25	<0.1		12	<+0.083
LL5247B	17	7.4		<19	<600		0.25	<0.1		13	<+0.084
LL5248B	18	7.0		<21	<600		0.25	<0.1		14	<+0.085
LL5249B	19	6.6		<23	<600		0.25	<0.1		15	<+0.086
LL5250B	20	6.2		<25	<600		0.25	<0.1		16	<+0.086
LL5251B	22	5.6		<29	<600		0.25	<0.1		17	<+0.087
LL5252B	24	5.2		<33	<600		0.25	<0.1		18	<+0.088
LL5253B	25	5.0		<35	<600		0.25	<0.1		19	<+0.089
LL5254B	27	4.6		<41	<600		0.25	<0.1		21	<+0.090
LL5255B	28	4.5		<44	<600		0.25	<0.1		21	<+0.091
LL5256B	30	4.2		<49	<600		0.25	<0.1		23	<+0.091
LL5257B	33	3.8		<58	<700		0.25	<0.1		25	<+0.092
LL5258B	36	3.4		<70	<700		0.25	<0.1		27	<+0.093
LL5259B	39	3.2		<80	<800		0.25	<0.1		30	<+0.094
LL5260B	43	3.0		<93	<900		0.25	<0.1		33	<+0.095
LL5261B	47	2.7		<105	<1000		0.25	<0.1		36	<+0.095
LL5262B	51	2.5		<125	<1100		0.25	<0.1		39	<+0.096
LL5263B	56	2.2		<150	<1300		0.25	<0.1		43	<+0.096
LL5264B	60	2.1		<170	<1400		0.25	<0.1		46	<+0.097
LL5265B	62	2.0		<185	<1400		0.25	<0.1		47	<+0.097
LL5266B	68	1.8		<230	<1600		0.25	<0.1		52	<+0.097
LL5267B	75	1.7		<270	<1700		0.25	<0.1		58	<+0.098
LL5268B	82	1.5		<330	<2000		0.25	<0.1		62	<+0.098
LL5269B	87	1.4		<370	<2200		0.25	<0.1		68	<+0.099
LL5270B	91	1.4		<400	<2300		0.25	<0.1		69	<+0.099
LL5271B	100	1.3		<500	<2600		0.25	<0.1		76	<+0.11

1) Based on DC-measurement at thermal equilibrium while maintaining the lead temperature(T_L) at 30°C, 9.5mm (3/8") from the diode body.

Characteristics ($T_J=25^\circ\text{C}$ unless otherwise specified)

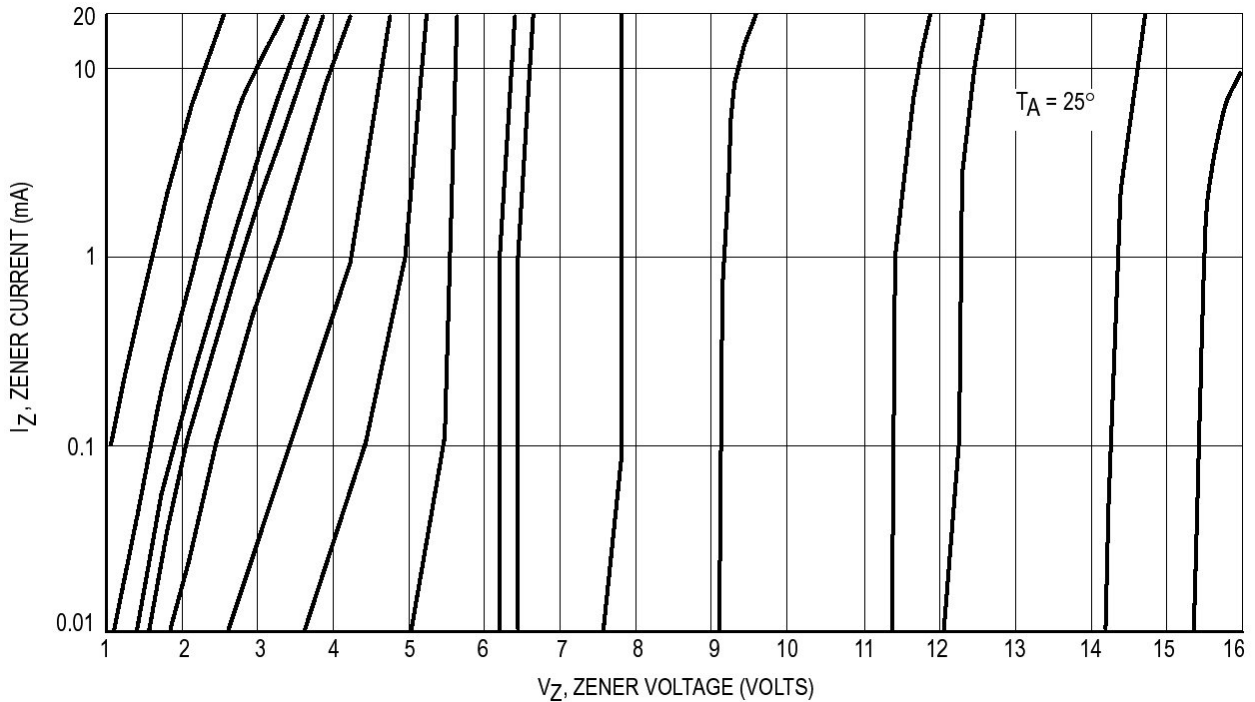


Figure 1. Zener Voltage versus Zener Current – $V_Z=1$ thru 16 Volts

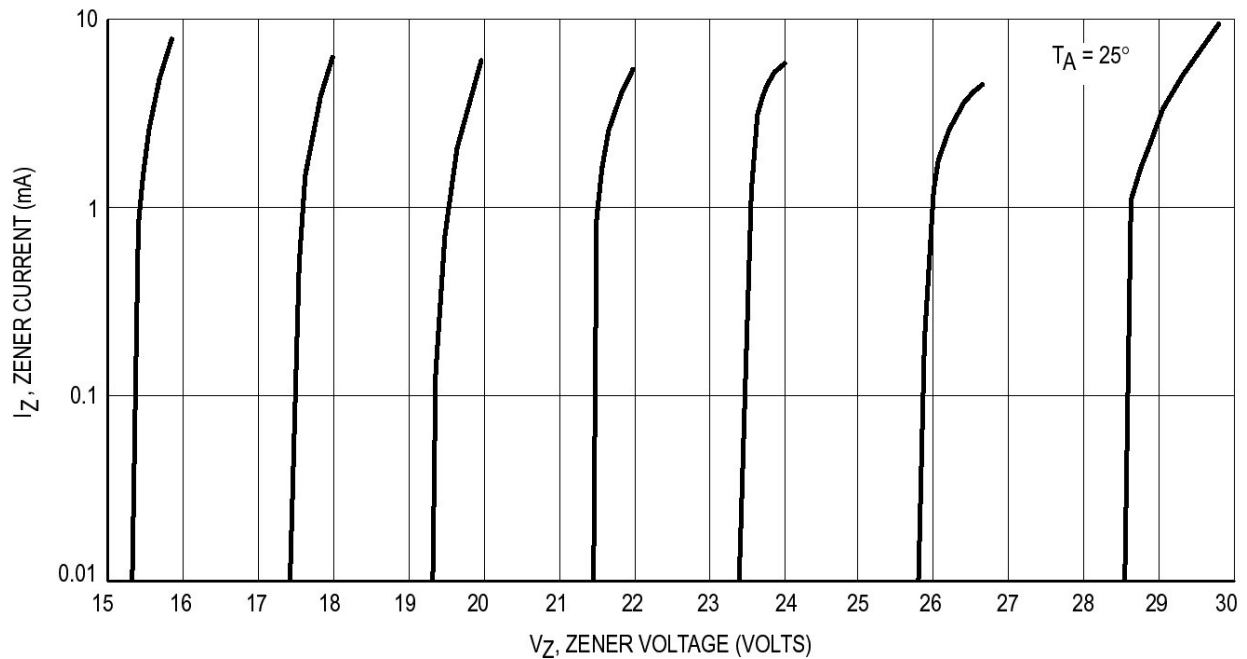


Figure 2. Zener Voltage versus Zener Current – $V_Z=15$ thru 30 Volts

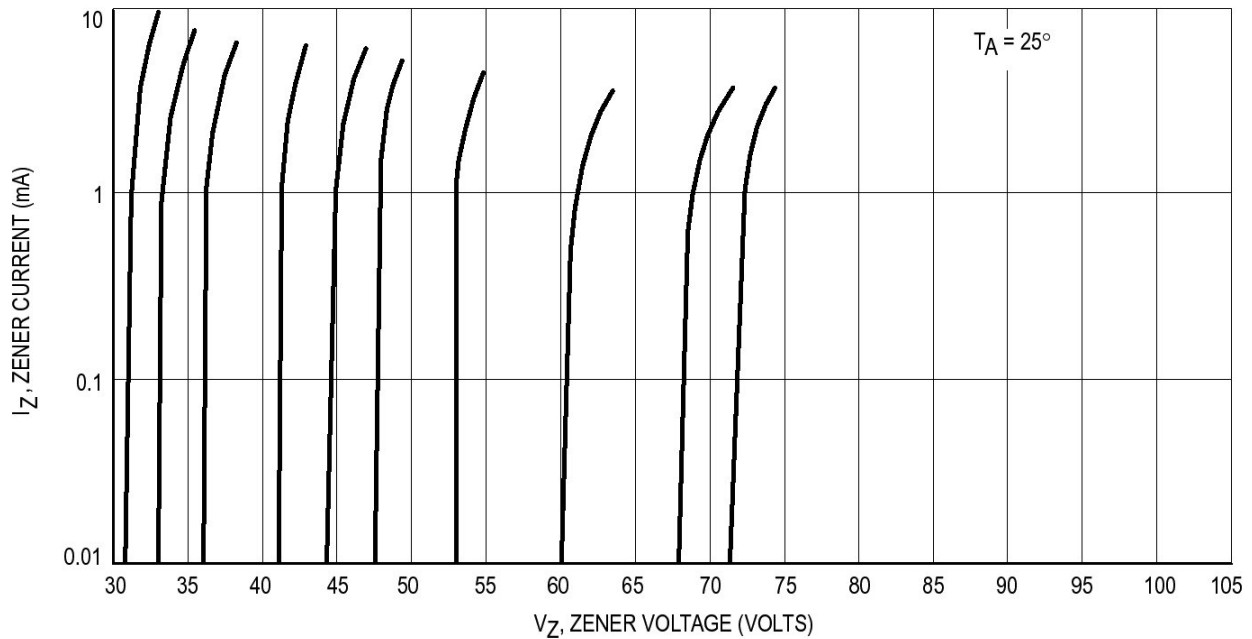


Figure 3. Zener Voltage versus Zener Current – $V_Z=30$ thru 75 Volts

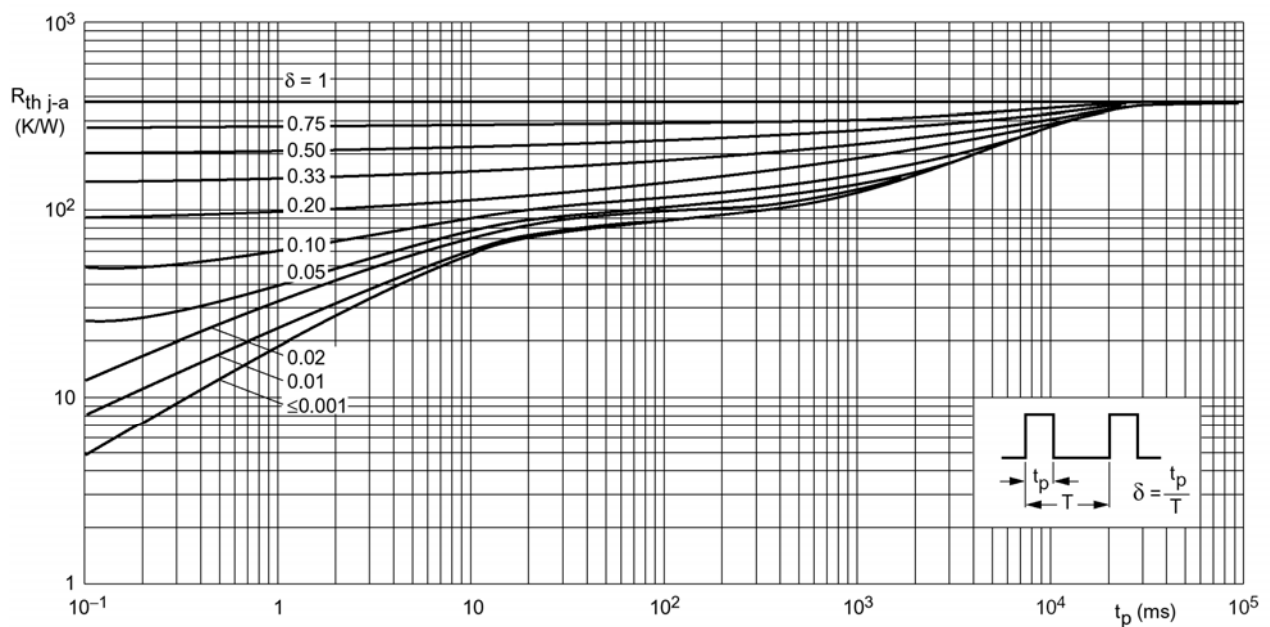


Figure 4. Thermal resistance from junction to ambient as a function of pulse duration