

# LL5221B~LL5267B Series

## Zener diode

**Voltage Range**  
2.4 to 75 Volts

### Features

- 1.High reliability
- 2.Very sharp reverse characteristic
- 3.Low reverse current level
- 4.Vz-tolerance  $\pm 5\%$

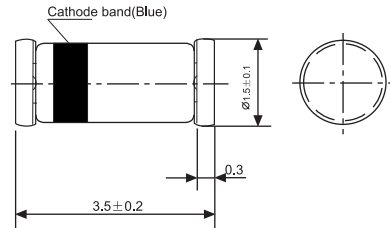
### Applications

Voltage stabilization

### Absolute Maximum Ratings

$T_j=25^{\circ}\text{C}$

Glass Case  
Mini MELF/SOD 80  
JEDEC DO 213AA



Parameter	Test Conditions	Type	Symbol	Value	Unit
Power dissipation	$T_{amb} \leq 75^{\circ}\text{C}$		$P_D$	500	W
Z-current			$I_z$	$P_D/V_z$	mA
Junction temperature			$T_j$	200	$^{\circ}\text{C}$
Storage temperature range			$T_{stg}$	-60~+175	$^{\circ}\text{C}$

### Maximum Thermal Resistance

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	$I=9.5\text{mm}(3/8\text{'})T_L=\text{constant}$	$R_{thJA}$	300	K/W

### Electrical Characteristics

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=200\text{mA}$		$V_F$			1.1	V

Type	Vznom		Izt for Vz1 and Rz1		Rzk at Izk		I <sub>r</sub> at V <sub>R</sub>		TK <sub>Vz</sub>
	V	mA	Ω	Ω	mA	uA	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<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	<2	8.0	<+0.075	
LL5241B	11	20	<22	<600	0.25	<1	8.4	<+0.076	
LL5242B	12	20	<30	<600	0.25	<0.5	9.1	<+0.077	
LL5243B	13	9.5	<13	<600	0.25	<0.1	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	<39	<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	

1)Based on DC-measurement at thermal equilibrium while maintaining the lead temperature (T<sub>L</sub>)at 30<sup>0</sup>C, 9.5mm(3/8") from the diode body.