



# Zener diode

## Features

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



## Applications

Voltage stabilization

## Absolute Maximum Ratings

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

Parameter	Test Conditions	Type	Symbol	Value	Unit
Power dissipation	$T_{amb} \leq 75\text{ }^\circ\text{C}$		$P_V$	500	mW
Z-current			$I_Z$	$P_V/V_Z$	mA
Junction temperature			$T_j$	200	$^\circ\text{C}$
Storage temperature range			$T_{stg}$	-65~+200	$^\circ\text{C}$

Stresses exceeding maximum ratings may damage the device. Maximum ratings are stress ratings only. Functional operation above the recommended operating conditions is not implied. Extended exposure to stresses above the recommended operating conditions may affect device reliability.

## Electrical Characteristics

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

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



Type	$V_{Znom}^{1)}$	$I_{ZT}$ for	$r_{zIT}$	$r_{zIK}$ at	$I_{ZK}$	$I_R$ at	$V_R$	$TK_{VZ}$
	V	mA	$\Omega$	$\Omega$	mA	$\mu A$	V	%/K
DL5221C	2.4	20	<30	<1200	0.25	<100	1.0	<-0.085
DL5222C	2.5	20	<30	<1250	0.25	<100	1.0	<-0.085
DL5223C	2.7	20	<30	<1300	0.25	<75	1.0	<-0.080
DL5224C	2.8	20	<30	<1400	0.25	<75	1.0	<-0.080
DL5225C	3.0	20	<29	<1600	0.25	<50	1.0	<-0.075
DL5226C	3.3	20	<28	<1600	0.25	<25	1.0	<-0.070
DL5227C	3.6	20	<24	<1700	0.25	<15	1.0	<-0.065
DL5228C	3.9	20	<23	<1900	0.25	<10	1.0	<-0.060
DL5229C	4.3	20	<22	<2000	0.25	<5	1.0	<+0.055
DL5230C	4.7	20	<19	<1900	0.25	<5	2.0	<+0.030
DL5231C	5.1	20	<17	<1600	0.25	<5	2.0	<+0.030
DL5232C	5.6	20	<11	<1600	0.25	<5	3.0	<+0.038
DL5233C	6.0	20	<7	<1600	0.25	<5	3.5	<+0.038
DL5234C	6.2	20	<7	<1000	0.25	<5	4.0	<+0.045
DL5235C	6.8	20	<5	<750	0.25	<3	5.0	<+0.050
DL5236C	7.5	20	<6	<500	0.25	<3	6.0	<+0.058
DL5237C	8.2	20	<8	<500	0.25	<3	6.5	<+0.062
DL5238C	8.7	20	<8	<600	0.25	<3	6.5	<+0.065
DL5239C	9.1	20	<10	<600	0.25	<3	7.0	<+0.068
DL5240C	10	20	<17	<600	0.25	<3	8.0	<+0.075
DL5241C	11	20	<22	<600	0.25	<2	8.4	<+0.076
DL5242C	12	20	<30	<600	0.25	<1	9.1	<+0.077
DL5243C	13	9.5	<13	<600	0.25	<0.5	9.9	<+0.079
DL5244C	14	9.0	<15	<600	0.25	<0.1	10	<+0.082
DL5245C	15	8.5	<16	<600	0.25	<0.1	11	<+0.082
DL5246C	16	7.8	<17	<600	0.25	<0.1	12	<+0.083
DL5247C	17	7.4	<19	<600	0.25	<0.1	13	<+0.084
DL5248C	18	7.0	<21	<600	0.25	<0.1	14	<+0.085
DL5249C	19	6.6	<23	<600	0.25	<0.1	15	<+0.086
DL5250C	20	6.2	<25	<600	0.25	<0.1	16	<+0.086
DL5251C	22	5.6	<29	<600	0.25	<0.1	17	<+0.087
DL5252C	24	5.2	<33	<600	0.25	<0.1	18	<+0.088
DL5253C	25	5.0	<35	<600	0.25	<0.1	19	<+0.089
DL5254C	27	4.6	<41	<600	0.25	<0.1	21	<+0.090
DL5255C	28	4.5	<44	<600	0.25	<0.1	21	<+0.091
DL5256C	30	4.2	<49	<600	0.25	<0.1	23	<+0.091
DL5257C	33	3.8	<58	<700	0.25	<0.1	25	<+0.092
DL5258C	36	3.4	<70	<700	0.25	<0.1	27	<+0.093
DL5259C	39	3.2	<80	<800	0.25	<0.1	30	<+0.094
DL5260C	43	3.0	<93	<900	0.25	<0.1	33	<+0.095
DL5261C	47	2.7	<105	<1000	0.25	<0.1	36	<+0.095
DL5262C	51	2.5	<125	<1100	0.25	<0.1	39	<+0.096
DL5263C	56	2.2	<150	<1300	0.25	<0.1	43	<+0.096
DL5264C	60	2.1	<170	<1400	0.25	<0.1	46	<+0.097
DL5265C	62	2.0	<185	<1400	0.25	<0.1	47	<+0.097
DL5266C	68	1.8	<230	<1600	0.25	<0.1	52	<+0.097
DL5267C	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( $T_L$ )at 30 °C, 9.5mm(3/8") from the diode body.



Characteristics ( $T_j=25$

$^{\circ}\text{C}$  unless otherwise specified)

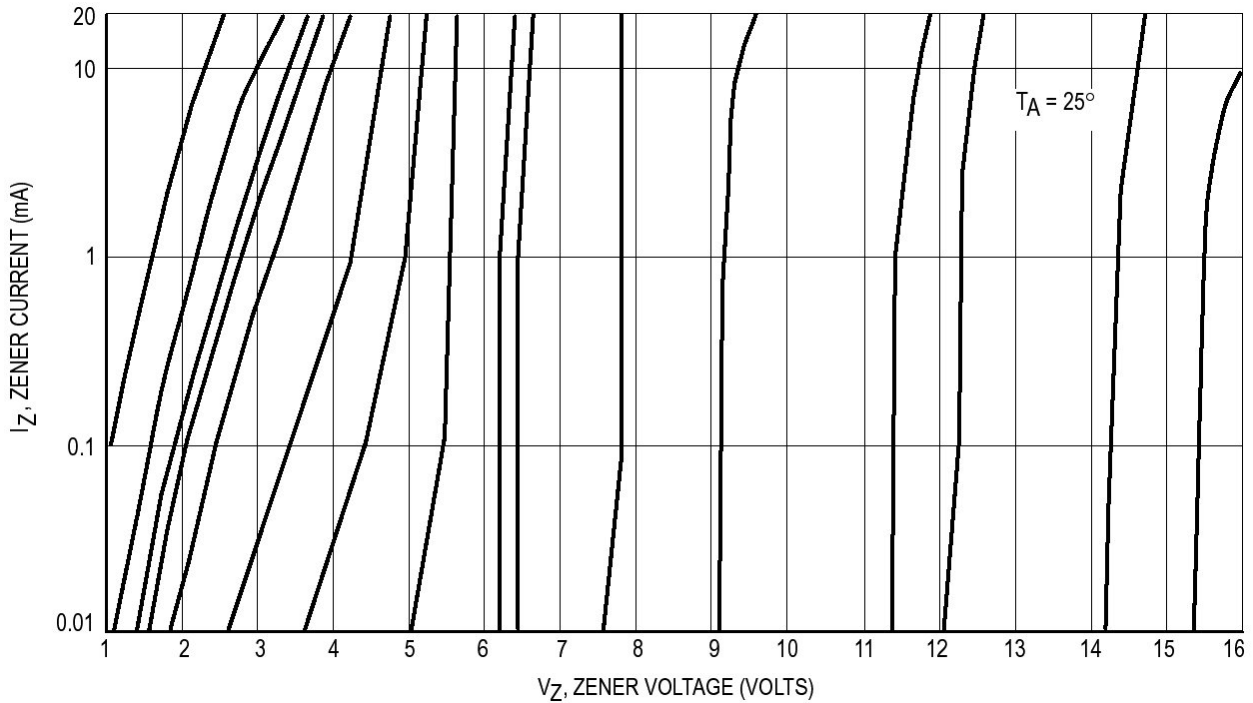


Figure 1. Zener Voltage versus Zener Current –  $V_Z=1$  thru 16 Volts

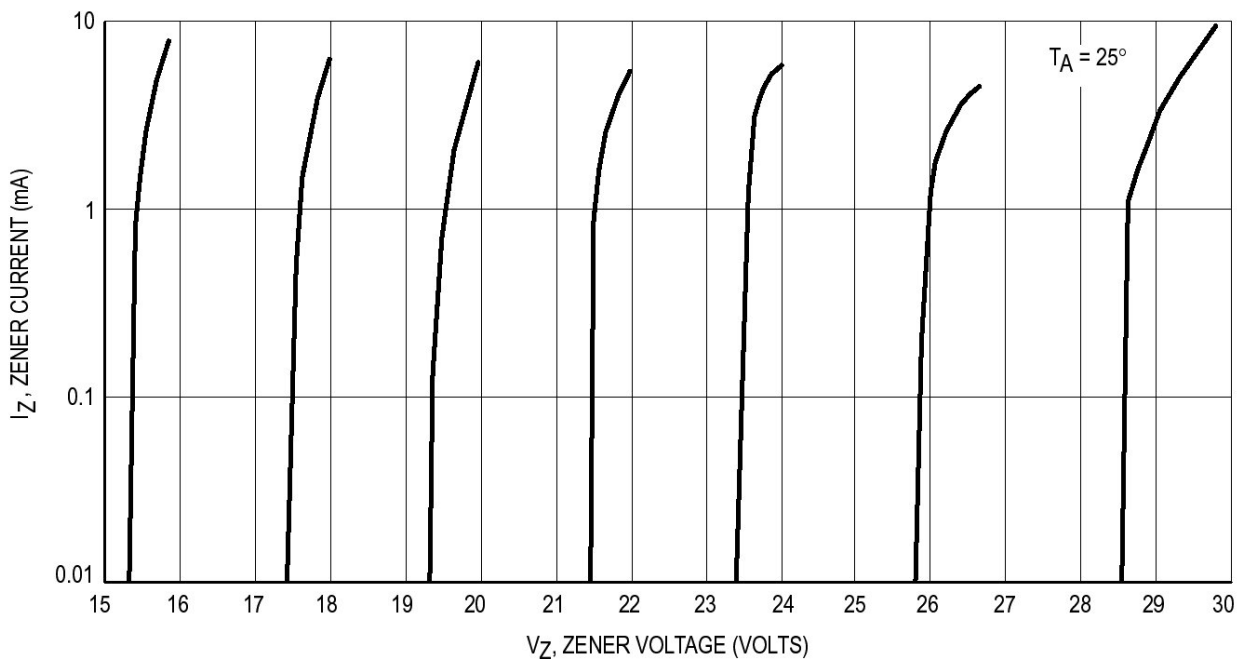


Figure 2. Zener Voltage versus Zener Current –  $V_Z=15$  thru 30 Volts

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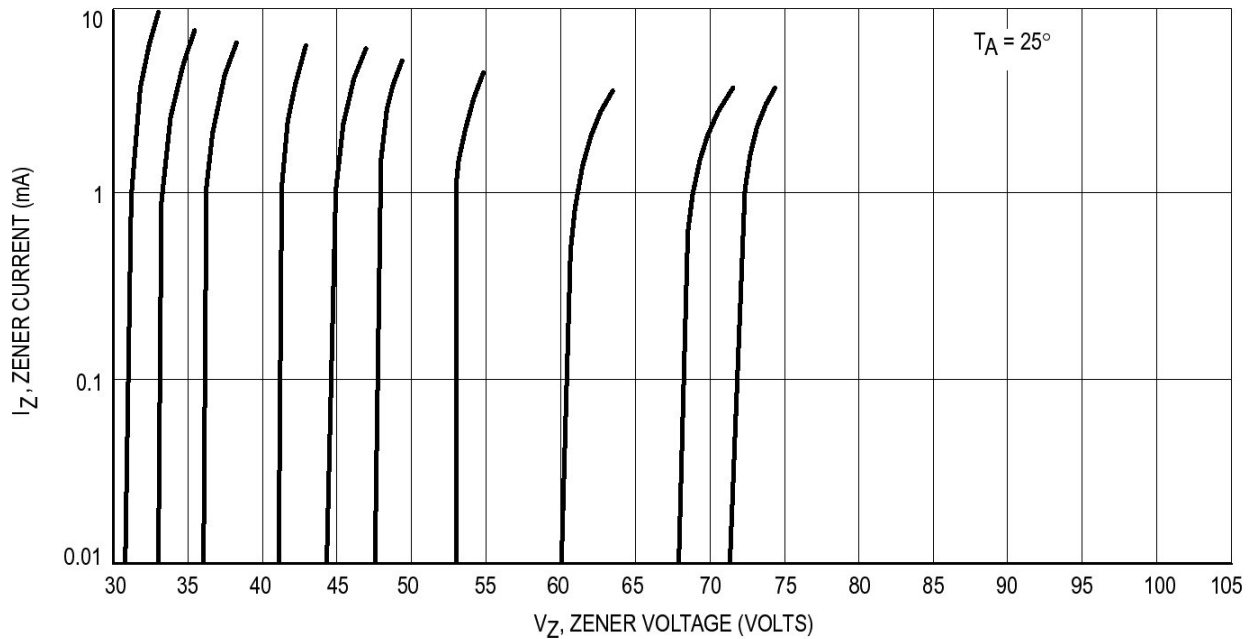
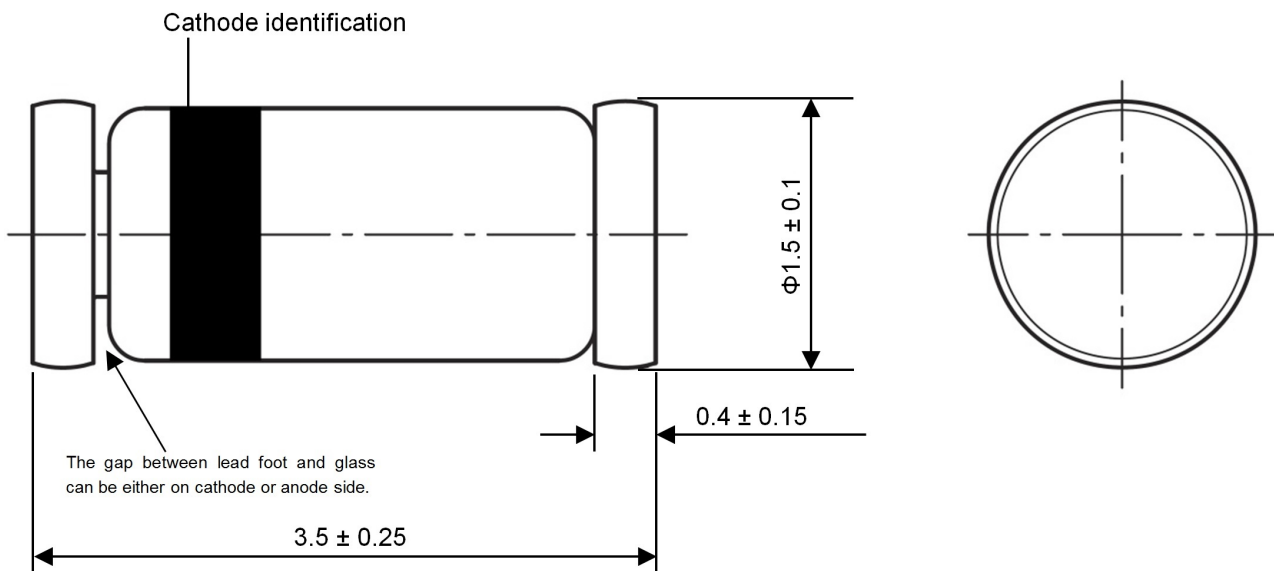


Figure 3. Zener Voltage versus Zener Current –  $V_Z=30$  thru 75 Volts

### Dimensions in mm



Glass Case  
Mini Melf / SOD-80  
JEDEC DO-213 AA

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