Zener diode

Features

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

Applications

Voltage stabilization

Absolute Maximum Ratings

T_j=25℃

Parameter	Test Conditions	Type	Symbol	Value	Unit
Power dissipation	T_{amb}≤75℃		P_V	500	mW
Z-current			I_Z	P_V/V_Z	mA
Junction temperature			T_j	200	℃
Storage temperature range			T_{stg}	-65~+200	℃

Maximum Thermal Resistance

T_j=25℃

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	l=9.5mm(3/8") T_L=constant	R_{thJA}	300	K/W

Electrical Characteristics

T_j=25℃

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=200mA		V_F			1.1	V

	V_{Znom} [1]	I_{ZT} for	r_{zjT}	r_{zjK} at	I_{ZK}	I_R at	V_R	TK_{VZ}
	V	mA	Ω	Ω	mA	μA	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℃, 9.5mm(3/8”) from the diode body.

Characteristics (T_j=25℃ unless otherwise specified)

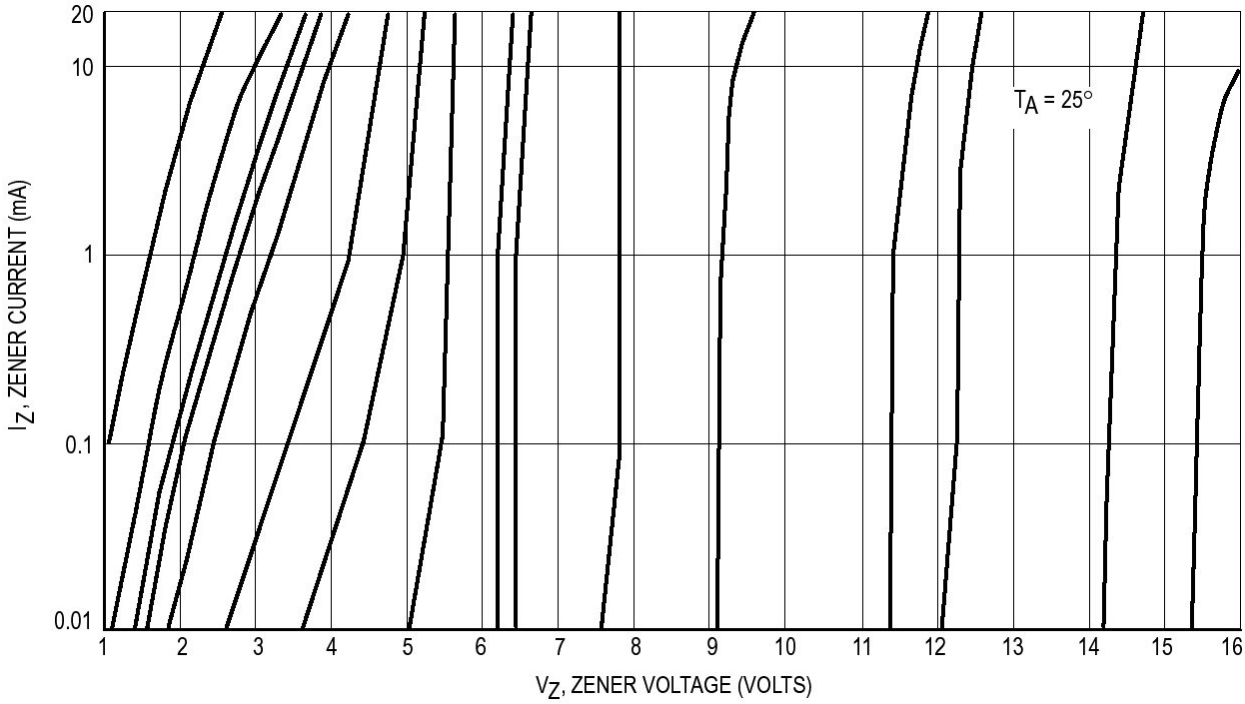


Figure 1. Zener Voltage versus Zener Current – Vz=1 thru 16 Volts

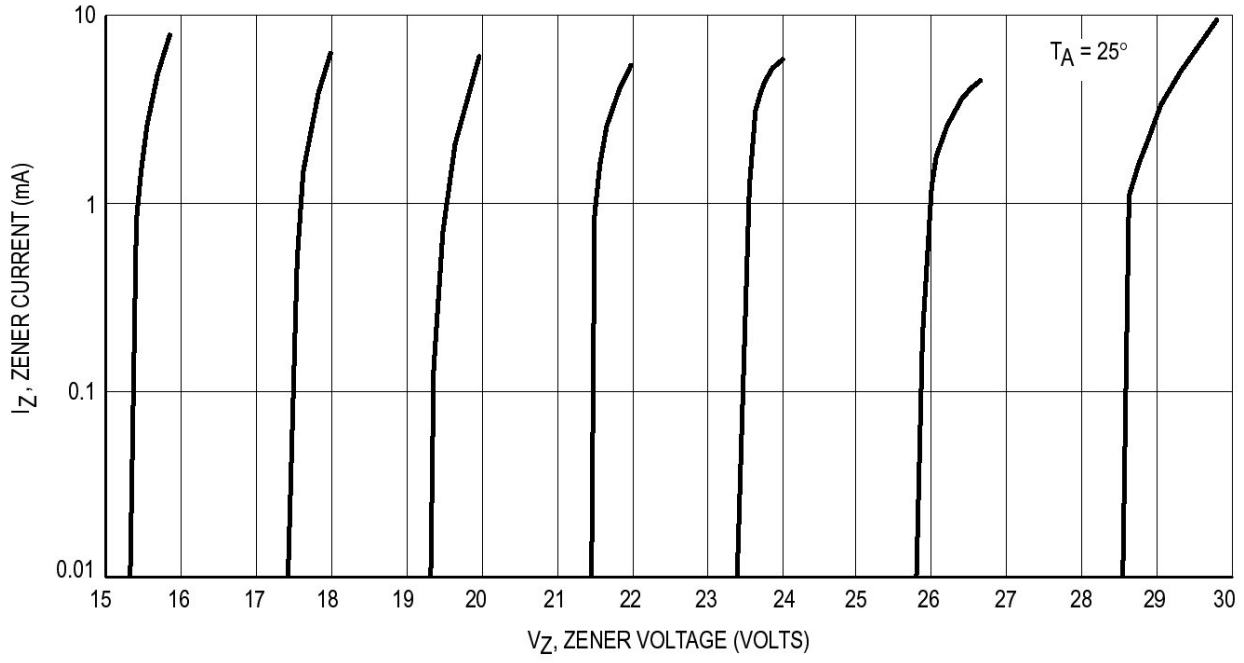


Figure 2. Zener Voltage versus Zener Current – Vz=15 thru 30 Volts

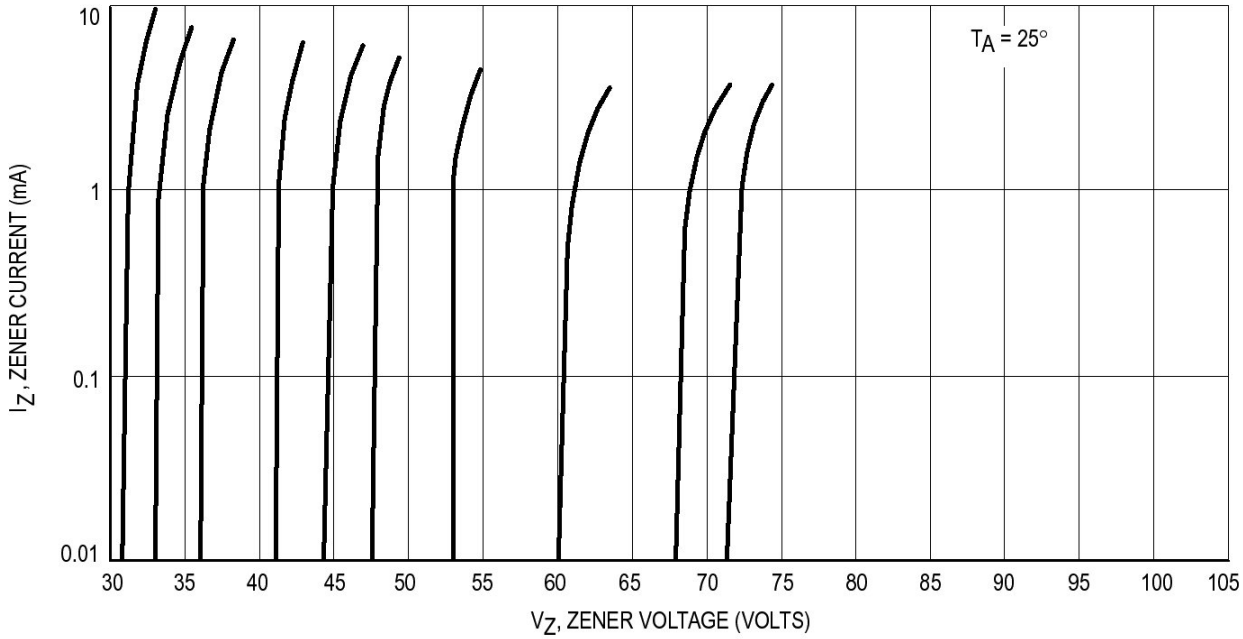


Figure 3. Zener Voltage versus Zener Current – Vz=30 thru 75 Volts

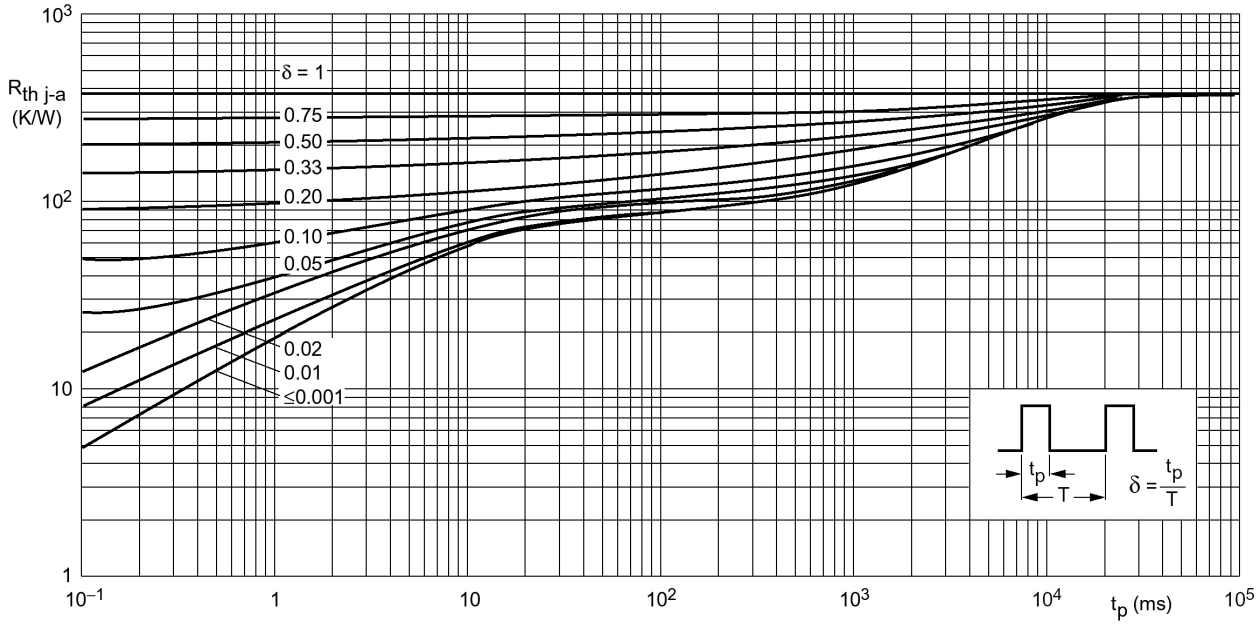
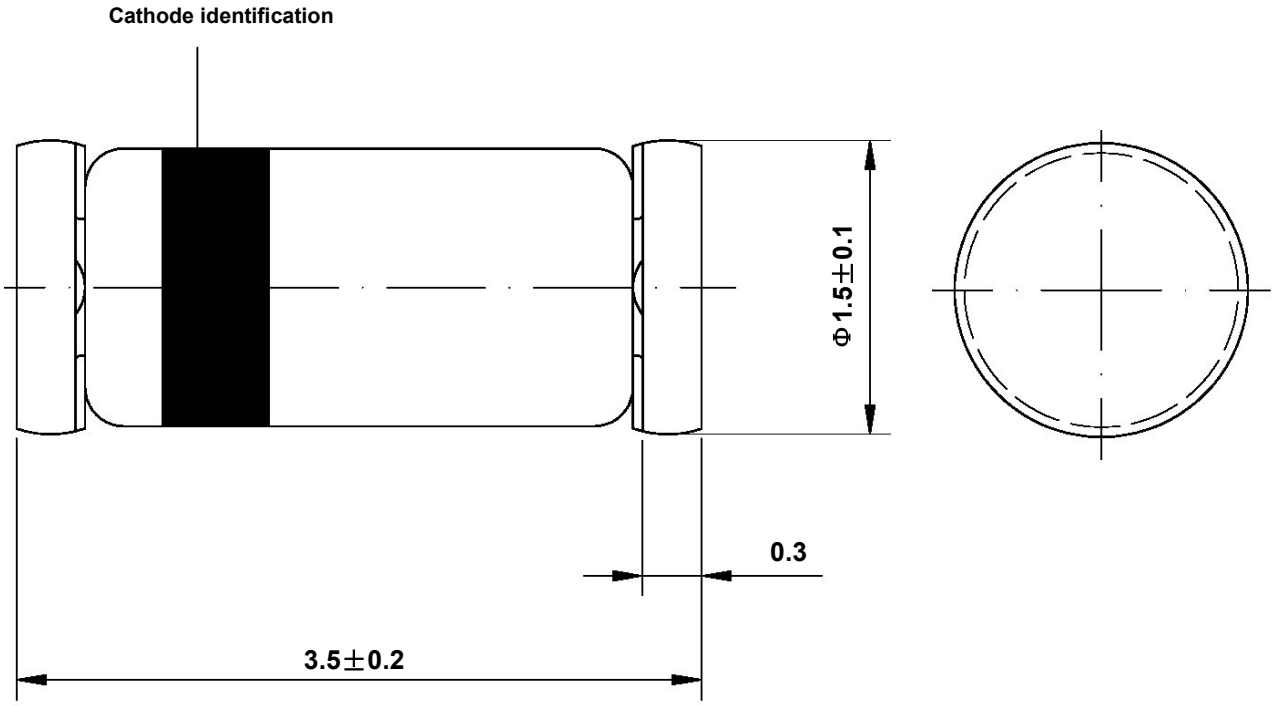


Figure 4. Thermal resistance from junction to ambient as a function of pulse duration

Dimensions in mm



Glass Case
Mini Melf / SOD 80
JEDEC DO 213 AA