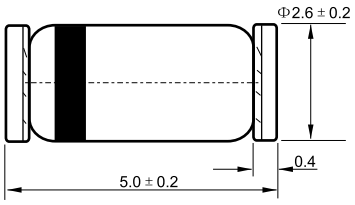
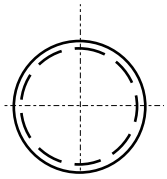
DL4727A-DL4761A

Zener Diode



MELF





Dimensions in inches and (millimeters)

Features

1. High reliability
2. Very sharp reverse characteristic
3. Low reverse current level
4. V_Z-tolerance ±5%

Applications

Voltage stabilization

Absolute Maximum Ratings

T_j=25℃

Parameter	Test Conditions	Type	Symbol	Value	Unit
Power dissipation	T_{amb}≤50℃		P_V	1	W
Z-current			I_Z	P_V/V_Z	mA
Junction temperature			T_j	200	℃
Storage temperature range			T_{stg}	-65~+175	℃

Maximum Thermal Resistance

T_j=25℃

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	l=9.5mm(3/8") T_L=constant	R_{thJA}	100	K/W

Electrical Characteristics

T_j=25℃

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=200mA		V_F			1.2	V

DL4727A-DL4761A

Zener Diode

Type	V_{Znom} [1]	I_{ZT} for	r_{zjT}	r_{zjK} at	I_{ZK}	I_R at	V_R
	V	mA	Ω	Ω	mA	μA	V
DL4727A	3.0	83	<10	<400	1	<100	1
DL4728A	3.3	76	<10	<400	1	<100	1
DL4729A	3.6	69	<10	<400	1	<100	1
DL4730A	3.9	64	<9	<400	1	<50	1
DL4731A	4.3	58	<9	<400	1	<10	1
DL4732A	4.7	53	<8	<500	1	<10	1
DL4733A	5.1	49	<7	<550	1	<10	1
DL4734A	5.6	45	<5	<600	1	<10	2
DL4735A	6.2	41	<2	<700	1	<10	3
DL4736A	6.8	37	<3.5	<700	1	<10	4
DL4737A	7.5	34	<4.0	<700	0. 5	<10	5
DL4738A	8.2	31	<4.5	<700	0. 5	<10	6
DL4739A	9.1	28	<5.0	<700	0. 5	<10	7
DL4740A	10	25	<7	<700	0.25	<10	7.6
DL4741A	11	23	<8	<700	0.25	<5	8.4
DL4742A	12	21	<9	<700	0.25	<5	9.1
DL4743A	13	19	<10	<700	0.25	<5	9.9
DL4744A	15	17	<14	<700	0.25	<5	11.4
DL4745A	16	15.5	<16	<700	0.25	<5	12.2
DL4746A	18	14	<20	<750	0.25	<5	13.7
DL4747A	20	12.5	<22	<750	0.25	<5	15.2
DL4748A	22	11.5	<23	<750	0.25	<5	16.7
DL4749A	24	10.5	<25	<750	0.25	<5	18.2
DL4750A	27	9.5	<35	<750	0.25	<5	20.6
DL4751A	30	8.5	<40	<1000	0.25	<5	22.8
DL4752A	33	7.5	<45	<1000	0.25	<5	25.1
DL4753A	36	7.0	<50	<1000	0.25	<5	27.4
DL4754A	39	6.5	<60	<1000	0.25	<5	29.7
DL4755A	43	6.0	<70	<1500	0.25	<5	32.7
DL4756A	47	5.5	<80	<1500	0.25	<5	35.8
DL4757A	51	5.0	<95	<1500	0.25	<5	38.8
DL4758A	56	4.5	<110	<2000	0.25	<5	42.6
DL4759A	62	4.0	<125	<2000	0.25	<5	47.1
DL4760A	68	3.7	<150	<2000	0.25	<5	51.7
DL4761A	75	3.3	<175	<2000	0.25	<5	56

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)

Symbol	Parameter
Vz	Reverse zener voltage @ I_{ZT}
I_{ZT}	Reverse current
Z_{ZT}	Maximum zener impedance @ I_{ZT}
I_{ZK}	Reverse current
Z_{ZK}	Maximum zener impedance @ I_{ZK}
I_R	Reverse leakage current @ V_R
V_R	Breakdown voltage
I_F	Forward current
V_F	Forward voltage @ I_F

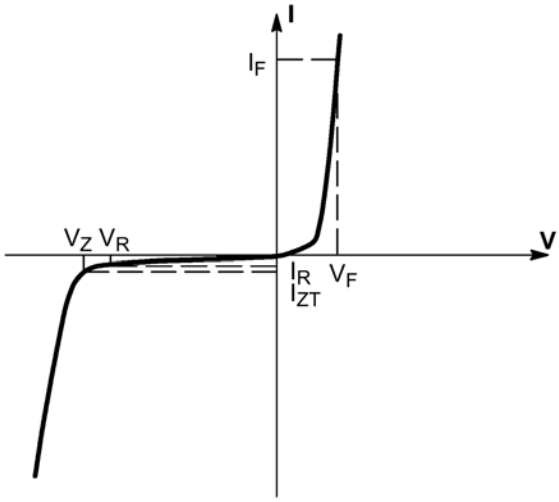


Figure 1. Zener voltage regulator

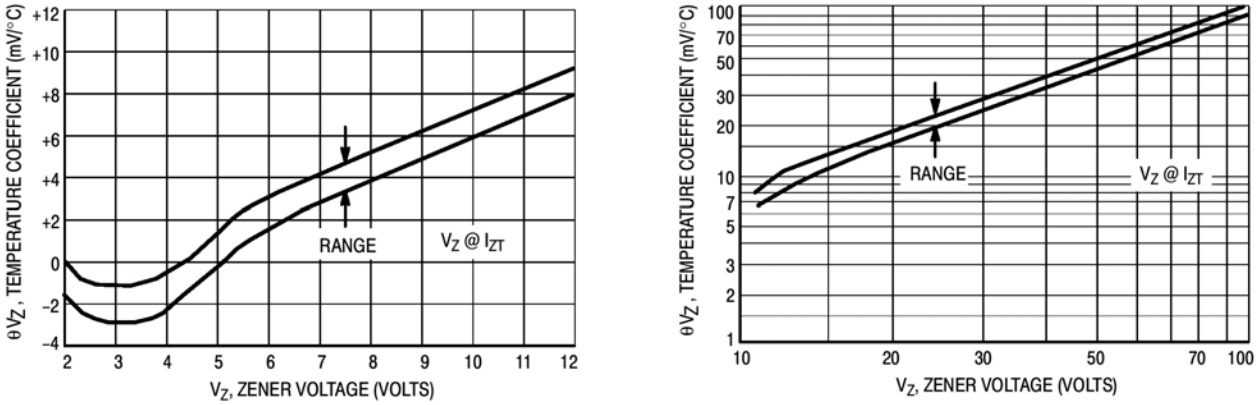


Figure 2. Temperature coefficients

(-55℃ to +150℃ temperature range; 90% of the units are in the ranges indicated)

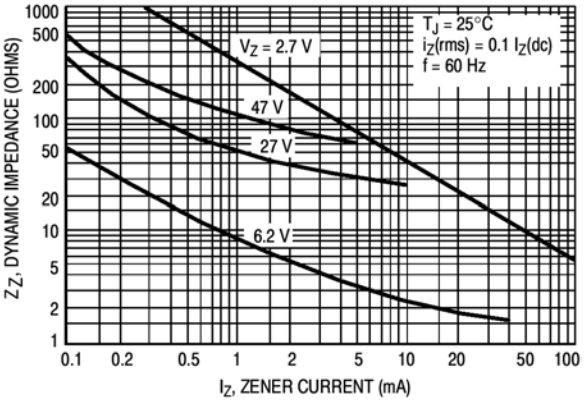


Figure 3. Effect of zener current on zener impedance

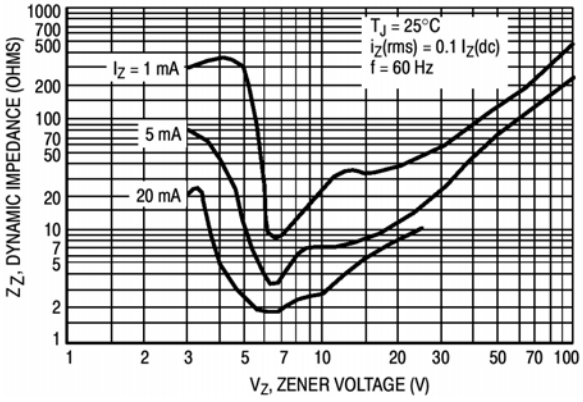


Figure 4. Effect of zener voltage on zener impedance