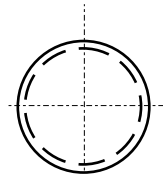
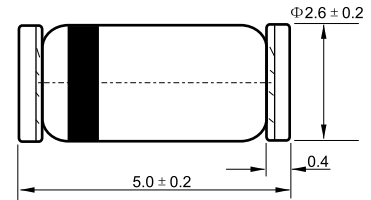




MELF



Dimensions in inches and (millimeters)

Features

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

Applications

Voltage stabilization

Absolute Maximum Ratings

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

Parameter	Test Conditions	Type	Symbol	Value	Unit
Power dissipation	$T_{\text{amb}} \leq 50^\circ\text{C}$		P_V	1	W
Z-current			I_Z	P_V/V_Z	mA
Junction temperature			T_j	200	$^\circ\text{C}$
Storage temperature range			T_{stg}	-65~+175	$^\circ\text{C}$

Maximum Thermal Resistance

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

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

Electrical Characteristics

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

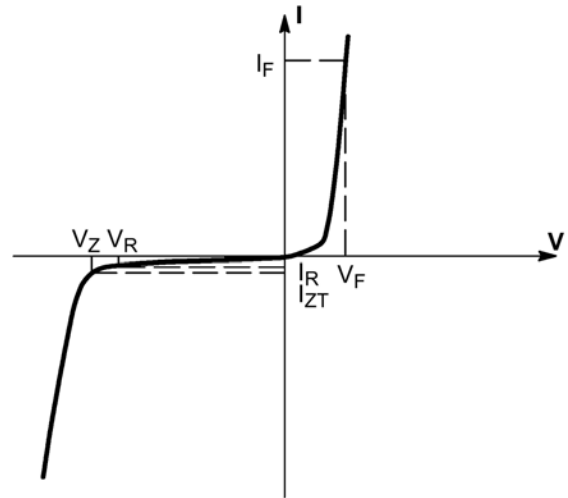
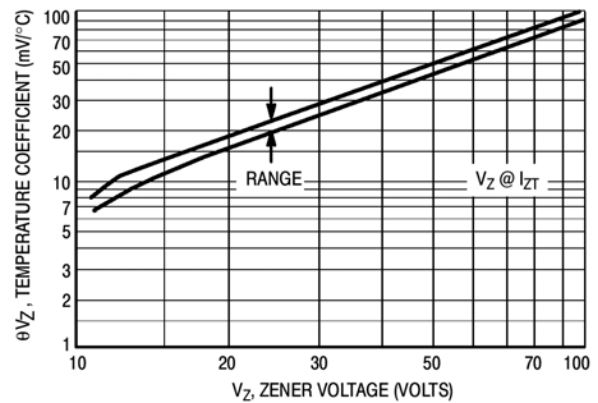
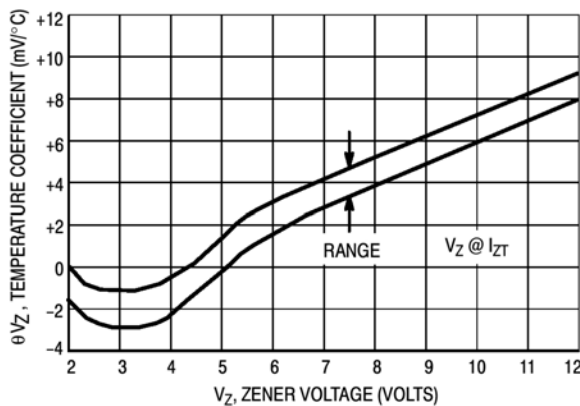
Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 200\text{mA}$		V_F			1.2	V

Type	$V_{Znom}^{1)}$	I_{ZT}	for	r_{zT}	r_{zK}	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

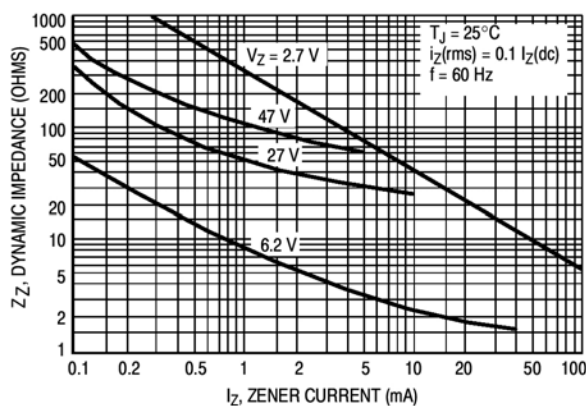
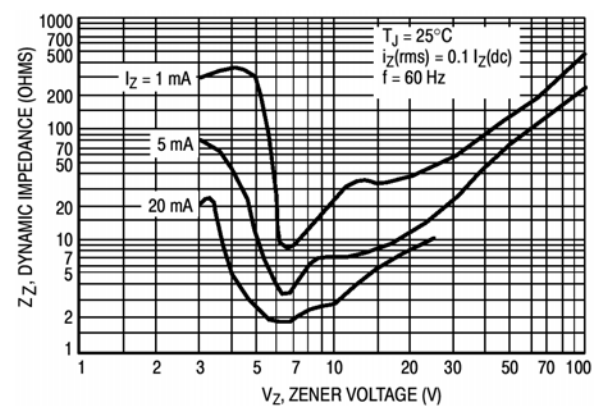
1) Based on DC-measurement at thermal equilibrium while maintaining the lead temperature(T_L) at 30°C, 9.5mm(3/8") from the diode body.

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

Symbol	Parameter
V_Z	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°C to $+150^\circ\text{C}$ 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