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HIGH DIODE

ZM4727A THRU ZM4761A

MELF Glass-Encapsulate Diodes

Zener Diodes

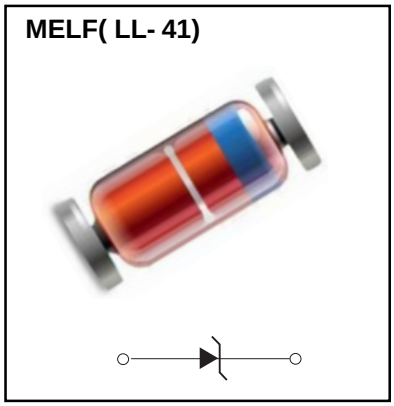
Features

- P_d 1W
- V_z 2.4V-75V

Applications

- Stabilizing Voltage

MELF(LL- 41)



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	Max
Power dissipation	P_d	W	T_L=75℃	1.0
Zener current	I_Z	mA		P_V /V_Z
Maximum junction temperature	T_j	℃		175
Storage temperature range	T_{stg}	℃		-65 to +175

Electrical Characteristics（T_a=25℃ Unless otherwise specified）

Item	Symbol	Unit	Conditions	Max
Thermal resistance	$R_{\theta JA}$	℃/W	Between junction and ambient	170
Forward voltage	V_F	V	I_F=200mA	1.2

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Electrical Characteristics (T_A=25℃ unless otherwise noted)

Type	Zener Voltage [3]		Dynamic Resistance [1]			Reverse Current		Maximum Surge Current [4]	Maximum Regulator Current [2]
	V_{Znom}	at I_{ZT}	Z_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R	at T_a = 25℃	
	(V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (μA)	(V)	I_{ZSM} (mA)	I_{ZM} (mA)
ZM4727A	3	83	10	400	1	150	1	1375	275
ZM4728A	3.3	76	10	400	1	150	1	1375	275
ZM4729A	3.6	69	10	400	1	100	1	1260	252
ZM4730A	3.9	64	9	400	1	100	1	1190	234
ZM4731A	4.3	58	9	400	1	50	1	1070	217
ZM4732A	4.7	53	8	500	1	10	1	970	193
ZM4733A	5.1	49	7	550	1	10	1	890	178
ZM4734A	5.6	45	5	600	1	10	2	810	162
ZM4735A	6.2	41	2	700	1	10	3	730	146
ZM4736A	6.8	37	3.5	700	1	10	4	660	133
ZM4737A	7.5	34	4	700	0.5	10	5	605	121
ZM4738A	8.2	31	4.5	700	0.5	10	6	550	110
ZM4739A	9.1	28	5	700	0.5	10	7	500	100
ZM4740A	10	25	7	700	0.25	10	7.6	454	91
ZM4741A	11	23	8	700	0.25	5	8.4	414	83
ZM4742A	12	21	9	700	0.25	5	9.1	380	76
ZM4743A	13	19	10	700	0.25	5	9.9	344	69
ZM4744A	15	17	14	700	0.25	5	11.4	304	61
ZM4745A	16	15.5	16	700	0.25	5	12.2	285	57
ZM4746A	18	14	20	750	0.25	5	13.7	250	50
ZM4747A	20	12.5	22	750	0.25	5	15.2	225	45
ZM4748A	22	11.5	23	750	0.25	5	16.7	205	41
ZM4749A	24	10.5	25	750	0.25	5	18.2	190	38
ZM4750A	27	9.5	35	750	0.25	5	20.6	170	34
ZM4751A	30	8.5	40	1000	0.25	5	22.8	150	30
ZM4752A	33	7.5	45	1000	0.25	5	25.1	135	27
ZM4753A	36	7	50	1000	0.25	5	27.4	125	25
ZM4754A	39	6.5	60	1000	0.25	5	29.7	115	23
ZM4755A	43	6	70	1500	0.25	5	32.7	110	22
ZM4756A	47	5.5	80	1500	0.25	5	35.8	95	19
ZM4757A	51	5	95	1500	0.25	5	38.8	90	18
ZM4758A	56	4.5	110	2000	0.25	5	42.6	80	16
ZM4759A	62	4	125	2000	0.25	5	47.1	70	14
ZM4760A	68	3.7	150	2000	0.25	5	51.7	65	13
ZM4761A	75	3.3	175	2000	0.25	5	56	60	12

[1] The dynamic resistance is derived from the 60 Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener Current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. Dynamic resistance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

[2] Valid provided that electrodes are kept at ambient temperature.

[3] Tested with pulses tp = 20 ms.

[4] The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current I_{ZT}.

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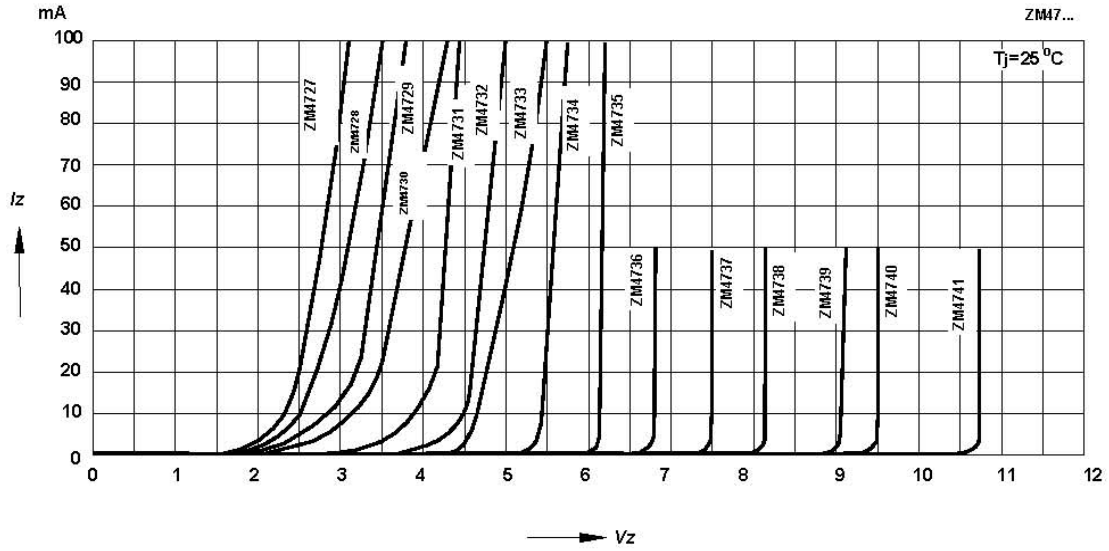
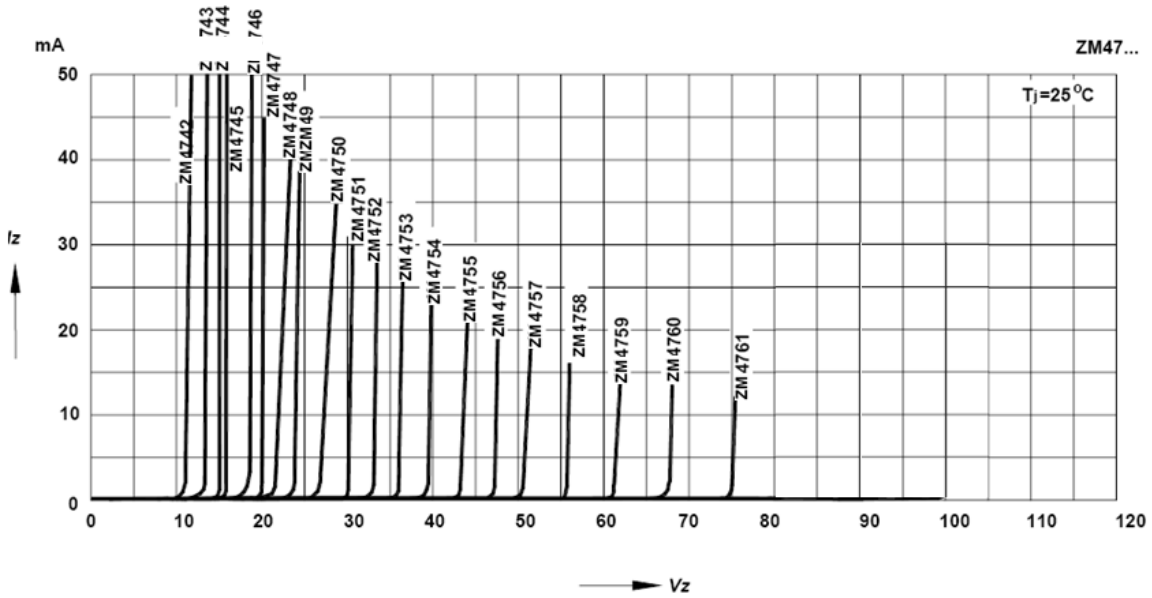
Typical Characteristics

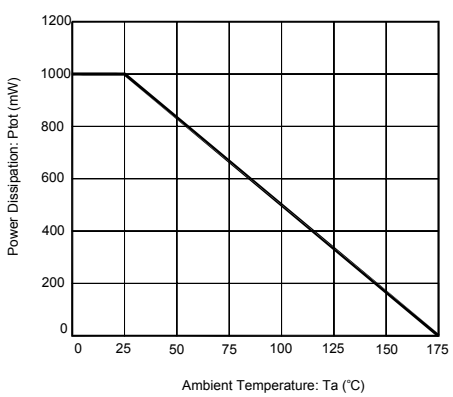
Breakdown characteristics

Tj= constant(pulsed)





Power Dissipation vs Ambient Temperature



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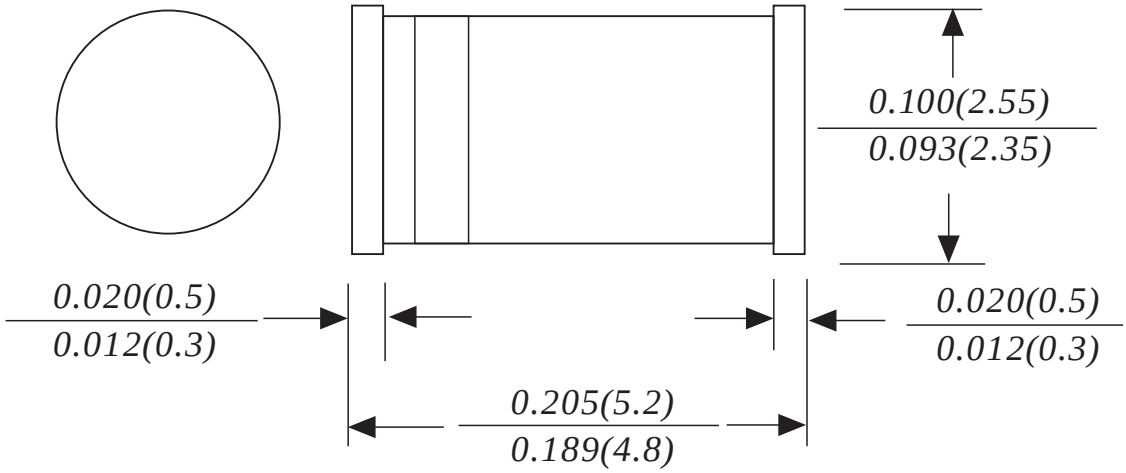
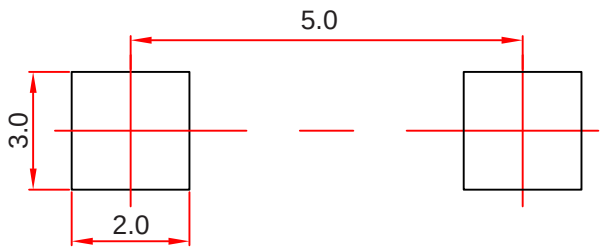
MELF(LL- 41) Package Outline Dimensions



Dimensions in millimeters

MELF(LL- 41) Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

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1. The method of packaging and dimension are shown as below figure. (Dimension in mm)