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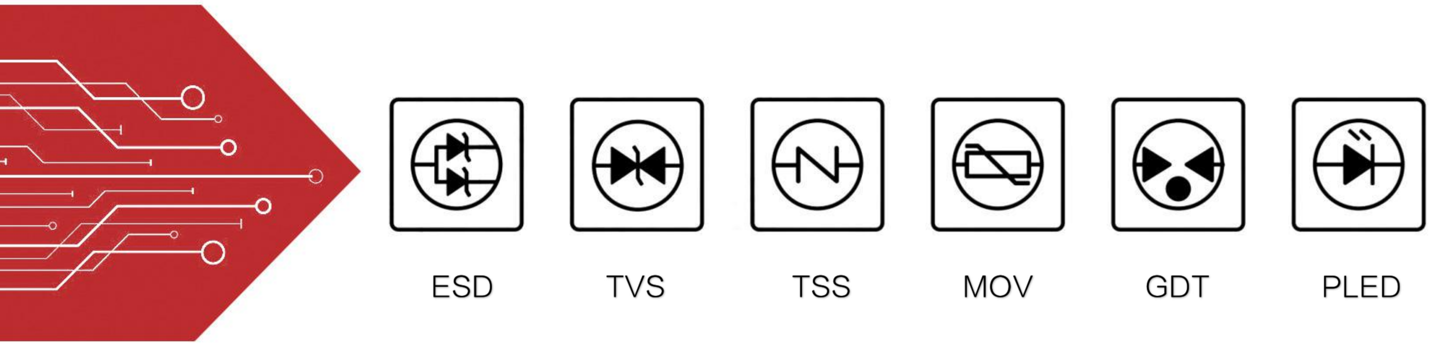
SEMICONDUCTOR



Product data sheet

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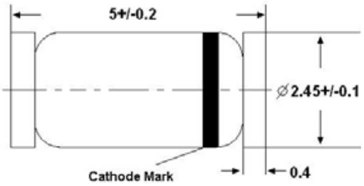


Glass case MELF
Dimensions in mm

LL41

for use in stabilizing and clipping circuits with high power rating. Standard Zener voltage tolerance is ±10%. Add suffix "A" for ±5% tolerance and suffix "B" for ±2% tolerance. Other tolerances available are upon request.

These diodes are also available in DO-41 case with the type designation 1N4727...1N4761

REEL SPECIFICATION

P/N	PKG	QTY
ZM4727-ZM4761	LL41	5000

Absolute Maximum Ratings (T_a = 25℃)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	1 1)	W
Junction Temperature	T_j	175	℃
Storage Temperature Range	T_{stg}	- 65 to + 175	℃
1) Valid provided that electrodes are kept at ambient temperature.			

Characteristics at T_a = 25℃

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	170 1)	K/W
Forward Voltage at I_F = 200 mA	V_F	1.2	V
1) Valid provided that electrodes are kept at ambient temperature.			

Characteristics at T_a = 25℃

P/N	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)
ZM4727	3	83	10	400	1	150	1	1375	275
ZM4728	3.3	76	10	400	1	150	1	1375	275
ZM4729	3.6	69	10	400	1	100	1	1260	252
ZM4730	3.9	64	9	400	1	100	1	1190	234
ZM4731	4.3	58	9	400	1	50	1	1070	217
ZM4732	4.7	53	8	500	1	10	1	970	193
ZM4733	5.1	49	7	550	1	10	1	890	178
ZM4734	5.6	45	5	600	1	10	2	810	162
ZM4735	6.2	41	2	700	1	10	3	730	146
ZM4736	6.8	37	3.5	700	1	10	4	660	133
ZM4737	7.5	34	4	700	0.5	10	5	605	121
ZM4738	8.2	31	4.5	700	0.5	10	6	550	110
ZM4739	9.1	28	5	700	0.5	10	7	500	100
ZM4740	10	25	7	700	0.25	10	7.6	454	91
ZM4741	11	23	8	700	0.25	5	8.4	414	83
ZM4742	12	21	9	700	0.25	5	9.1	380	76
ZM4743	13	19	10	700	0.25	5	9.9	344	69
ZM4744	15	17	14	700	0.25	5	11.4	304	61
ZM4745	16	15.5	16	700	0.25	5	12.2	285	57
ZM4746	18	14	20	750	0.25	5	13.7	250	50
ZM4747	20	12.5	22	750	0.25	5	15.2	225	45
ZM4748	22	11.5	23	750	0.25	5	16.7	205	41
ZM4749	24	10.5	25	750	0.25	5	18.2	190	38
ZM4750	27	9.5	35	750	0.25	5	20.6	170	34
ZM4751	30	8.5	40	1000	0.25	5	22.8	150	30
ZM4752	33	7.5	45	1000	0.25	5	25.1	135	27
ZM4753	36	7	50	1000	0.25	5	27.4	125	25
ZM4754	39	6.5	60	1000	0.25	5	29.7	115	23
ZM4755	43	6	70	1500	0.25	5	32.7	110	22
ZM4756	47	5.5	80	1500	0.25	5	35.8	95	19
ZM4757	51	5	95	1500	0.25	5	38.8	90	18
ZM4758	56	4.5	110	2000	0.25	5	42.6	80	16
ZM4759	62	4	125	2000	0.25	5	47.1	70	14
ZM4760	68	3.7	150	2000	0.25	5	51.7	65	13
ZM4761	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.

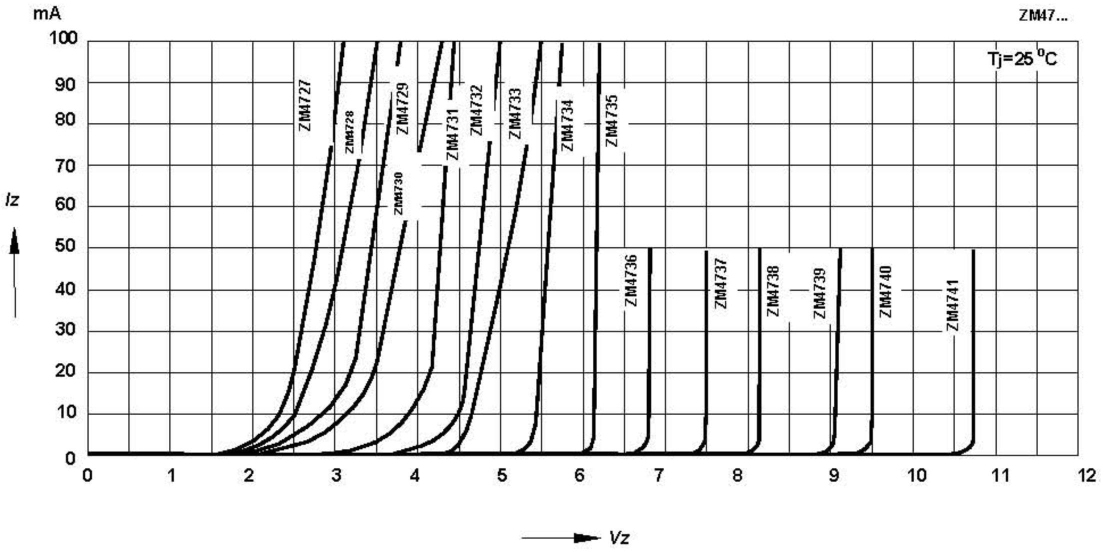
[2] Valid provided that electrodes are kept at ambient temperature.

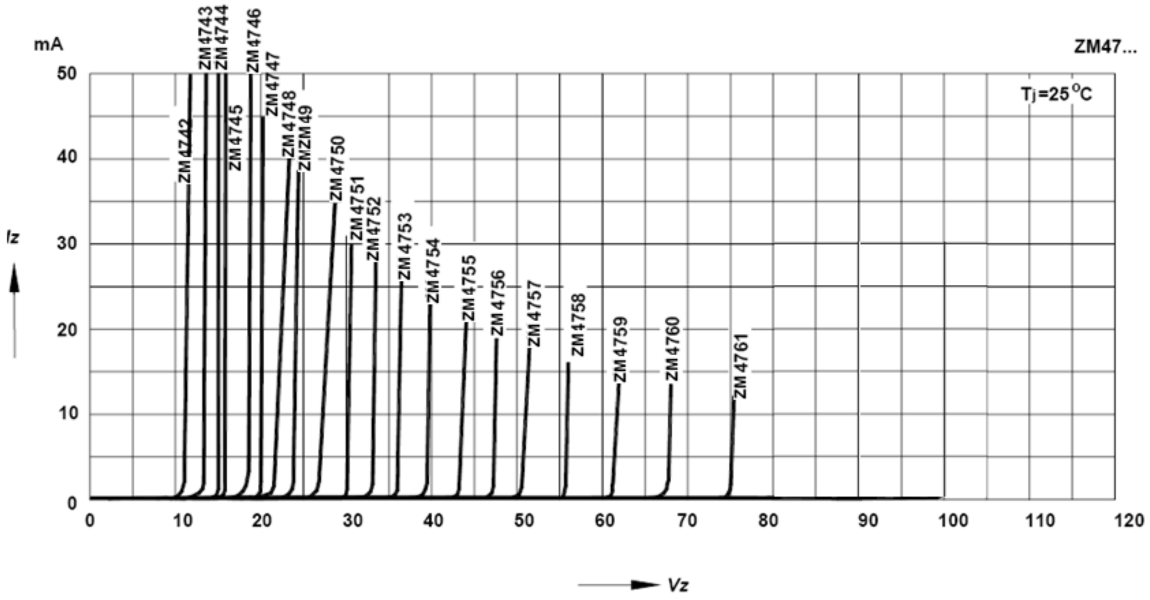
[3] Tested with pulses tp = 20 ms.

[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}.

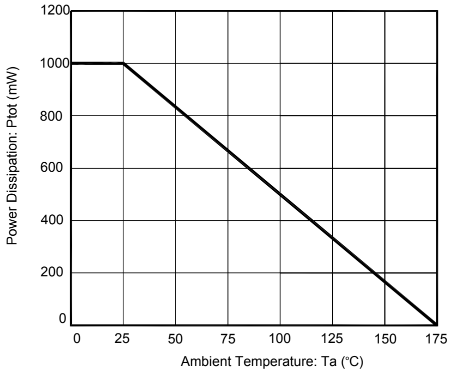
Breakdowm characteristics

Tj=constant(pulsed)





Power Dissipation vs Ambient Temperature



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