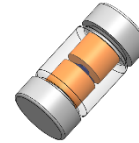


1W,1 - 100V Zener Diodes

Features

- Low leakage current
- Available in unidirectional
- Glass passivated junction
- Total power dissipation: Max 1W
- Silicon Planar Power Zener Diodes
- Moisture sensitivity: level 1, per J-STD-020



MELF

Applications

Protection from high voltage, high energy transients, voltage stabilization.

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)			
Parameter	Symbol	Ratings	Unit
Zener voltage	V_Z	See Next Table	V
Power dissipation at $T_L=75^{\circ}\text{C}$	P_{tot}	1	W
Typical Thermal Resistance , Junction to Ambient	$R_{\theta JA}$	170	$^{\circ}\text{C/W}$
Typical Thermal Resistance , Junction to Case	$R_{\theta JC}$	60	$^{\circ}\text{C/W}$
Maximum junction temperature	T_J	175	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-65 to +175	$^{\circ}\text{C}$

Note:

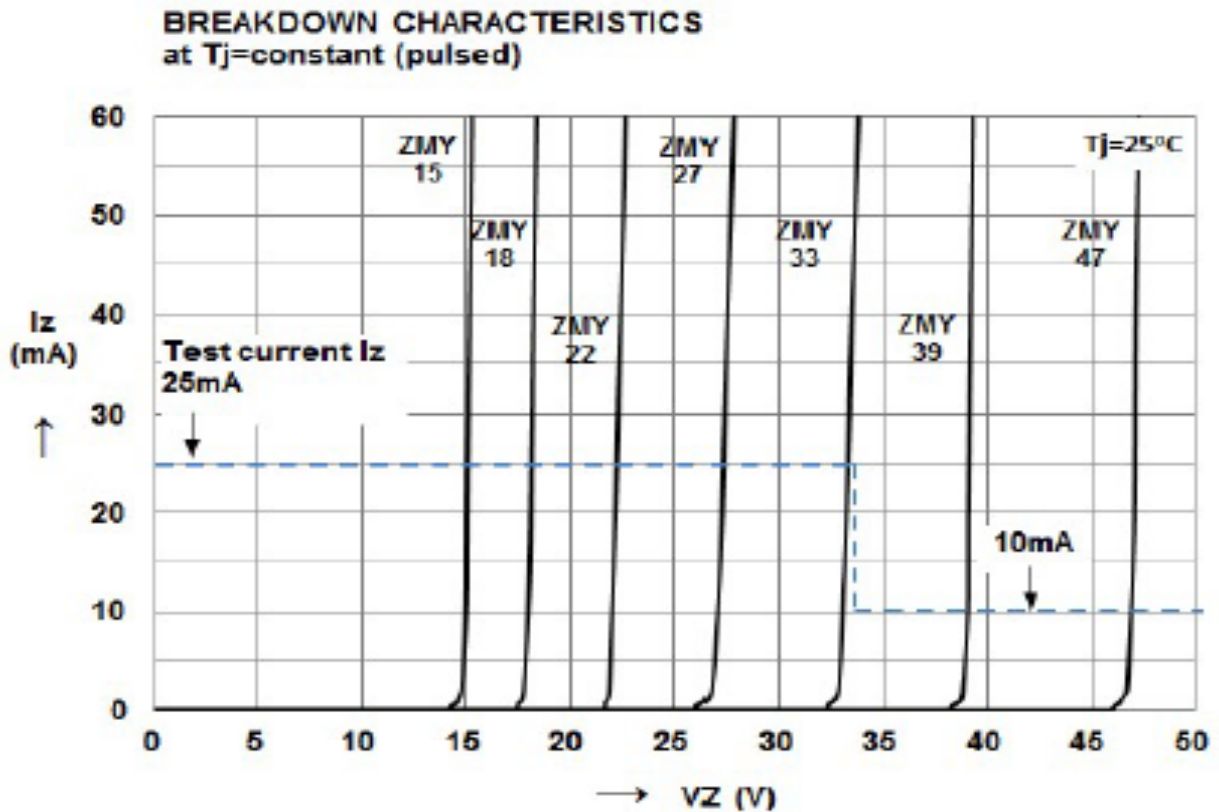
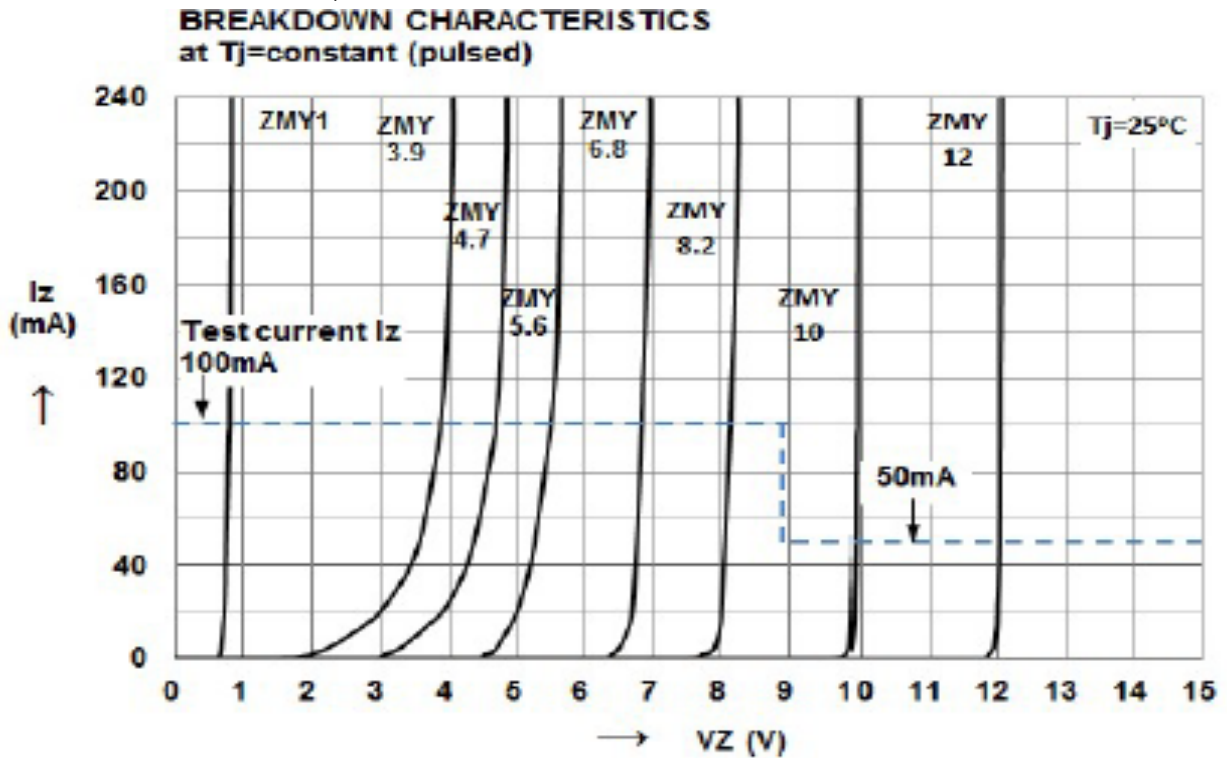
1. Valid provided that leads at a distance of 9.5mm from case are kept at ambient temperature.

Electrical Characteristics (TA = 25 °C unless otherwise noted)

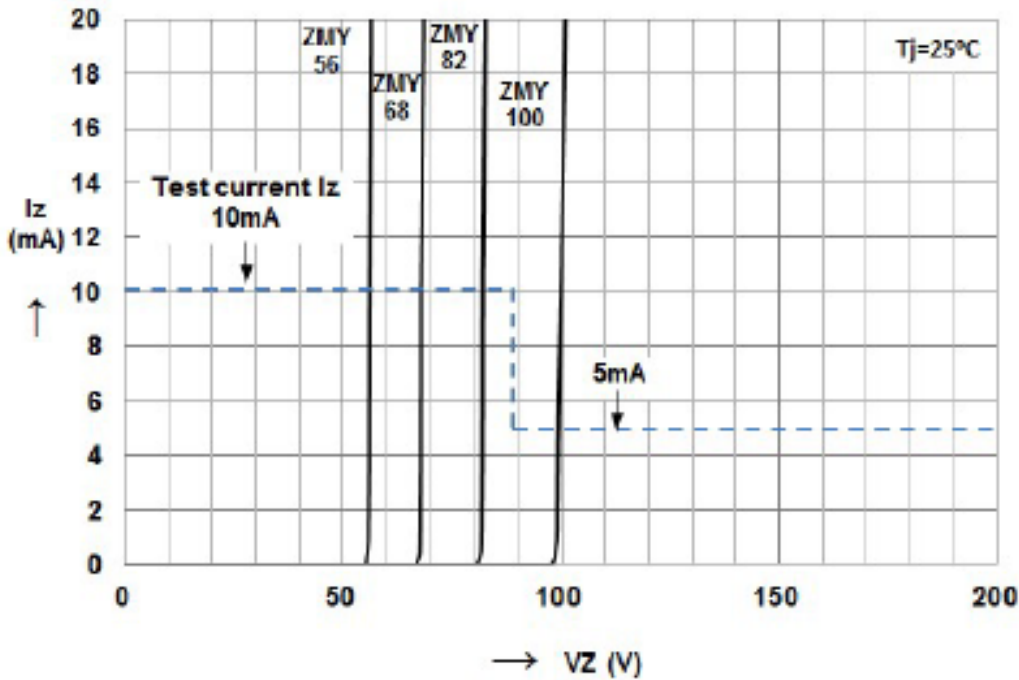
Part Number	V _Z at I _{ZT} (V)			Maximum dynamic resistance		Minimum reverse voltage at I _R =0.5uA	Maximum Zener Current
	Min	Typ	Max	Z _{ZT} @I _{ZT} (Ω)	I _{ZT} (mA)		
						I _{ZM} (mA)	
ZMY1	0.65	-	0.75	8	5	-	406
ZMY3.9	3.7	3.9	4.1	7	100	-	203
ZMY4.3	4.0	4.3	4.6	7	100	-	182
ZMY4.7	4.4	4.7	5.0	7	100	-	165
ZMY5.1	4.8	5.1	5.4	5	100	0.7	150
ZMY5.6	5.2	5.6	6.0	2	100	1.5	135
ZMY6.2	5.8	6.2	6.6	2	100	2.0	128
ZMY6.8	6.4	6.8	7.2	2	100	3.0	110
ZMY7.5	7.0	7.5	7.9	2	100	5.0	100
ZMY8.2	7.7	8.2	8.7	2	100	6.0	89
ZMY9.1	8.5	9.1	9.6	4	50	7.0	82
ZMY10	9.4	10	10.6	4	50	7.5	74
ZMY11	10.4	11	11.6	7	50	8.5	66
ZMY12	11.4	12	12.7	7	50	9.0	60
ZMY13	12.4	13	14.1	9	50	10	55
ZMY15	13.8	15	15.8	9	50	11	49
ZMY16	15.3	16	17.1	10	25	12	44
ZMY18	16.8	18	19.1	11	25	14	40
ZMY20	18.8	20	21.2	12	25	15	36
ZMY22	20.8	22	23.3	13	25	17	34
ZMY24	22.8	24	25.6	14	25	18	29
ZMY27	25.1	27	28.9	15	25	20	27
ZMY30	28.0	30	32.0	20	25	22.5	25
ZMY33	31.0	33	35.0	20	25	25	22
ZMY36	34.0	36	38.0	60	10	27	20
ZMY39	37.0	39	41.0	60	10	29	18
ZMY43	40.0	43	46.0	80	10	32	17
ZMY47	44.0	47	50.0	80	10	35	15
ZMY51	48.0	51	54.0	100	10	38	14
ZMY56	52.0	56	60.0	100	10	42	13
ZMY62	58.0	62	66.0	130	10	47	11
ZMY68	64.0	68	72.0	130	10	51	10
ZMY75	70.0	75	79.0	160	10	56	9
ZMY82	77.0	82	88.0	160	10	61	8
ZMY91	85.0	91	96.0	250	5	68	7.5
ZMY100	94.0	100	106.0	250	5	75	7

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

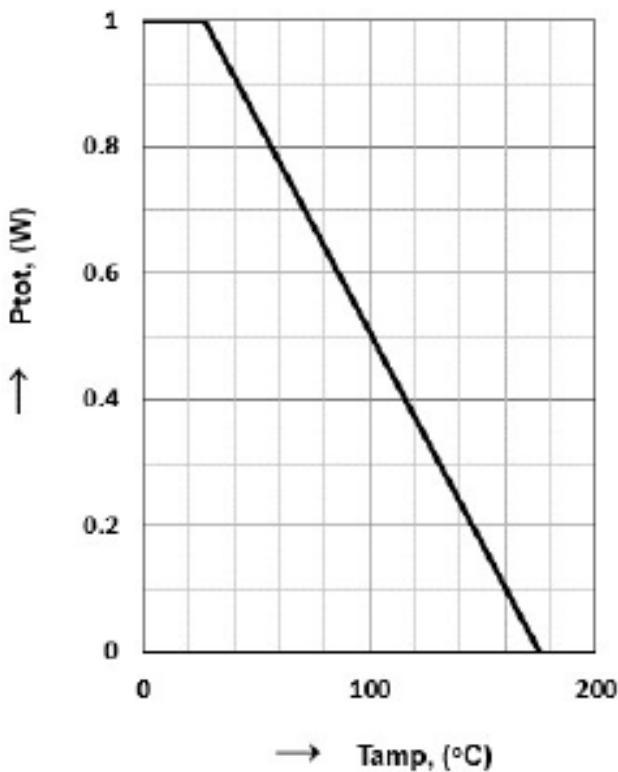


BREAKDOWN CHARACTERISTICS at $T_j = \text{constant}$ (pulsed)



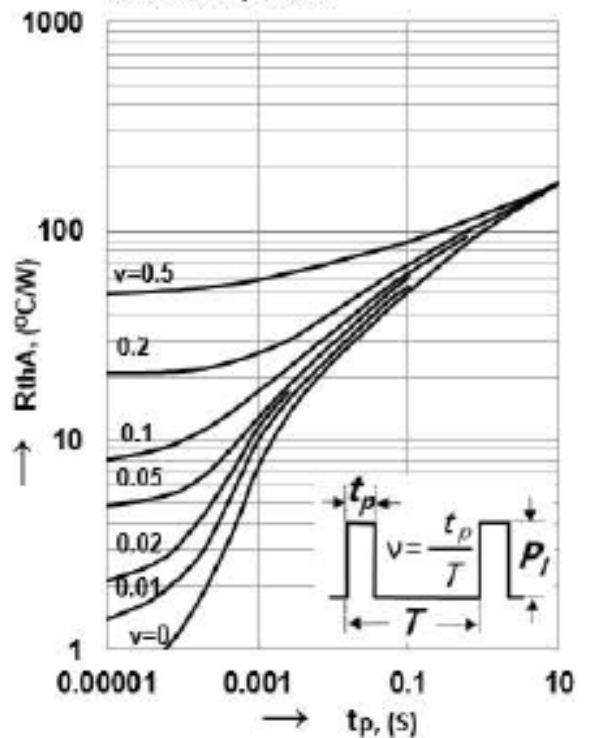
Admissible power dissipation versus ambient temperature

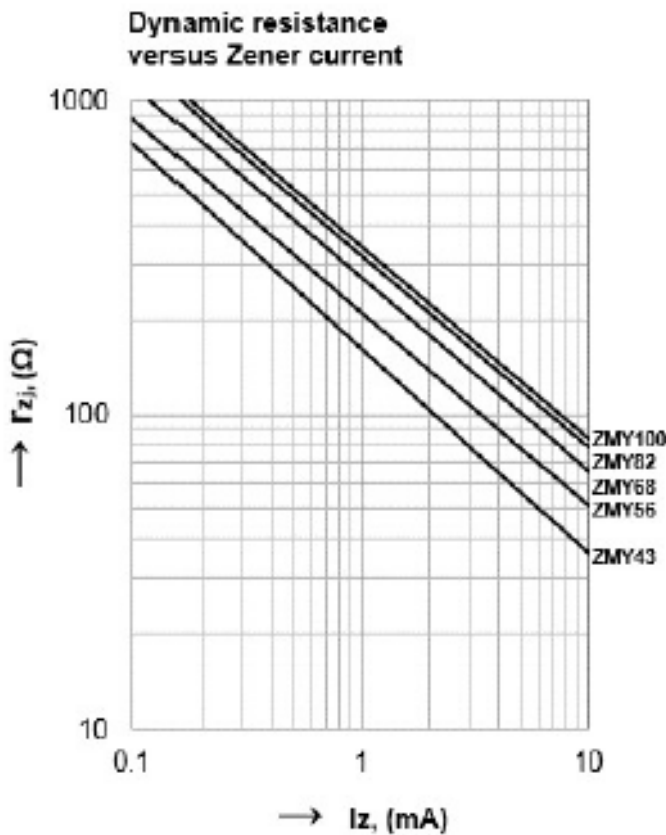
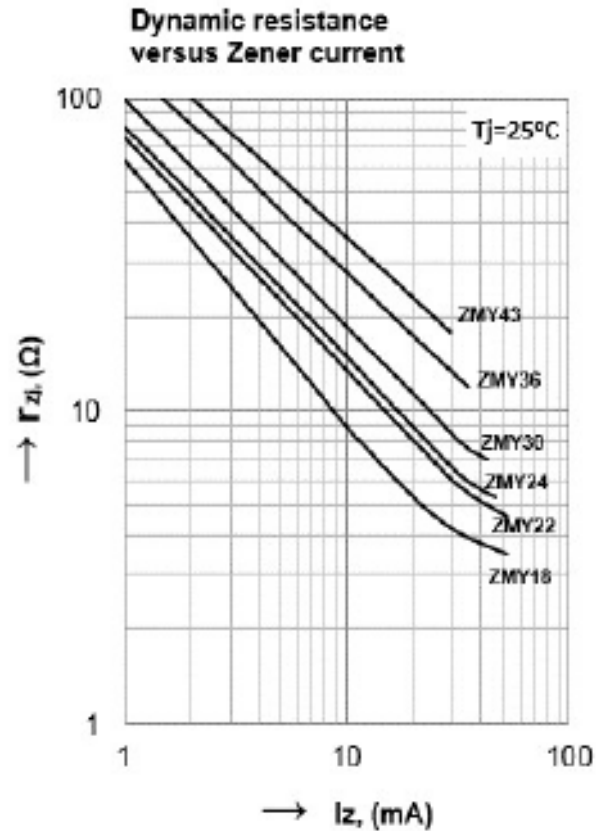
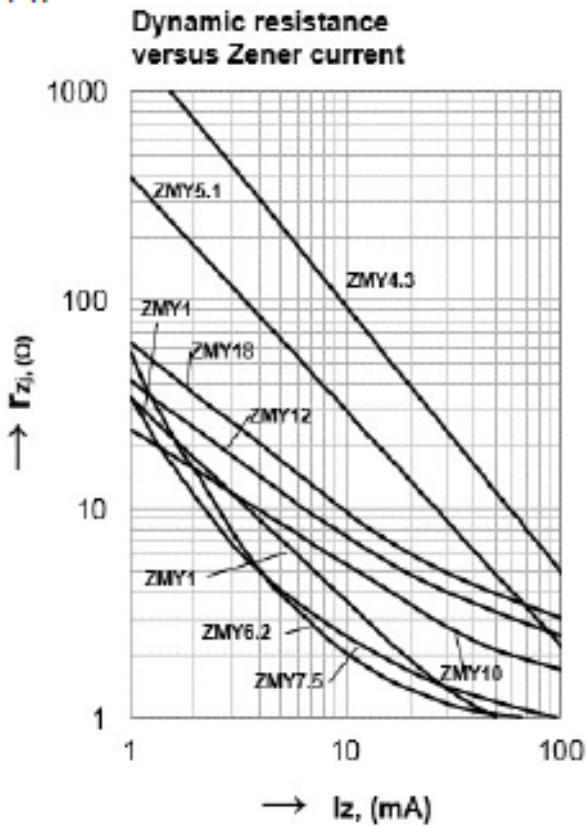
Valid provided that electrodes are kept at ambient temperature



Pulse thermal resistance versus pulse duration

Valid provided that electrodes are kept at ambient temperature



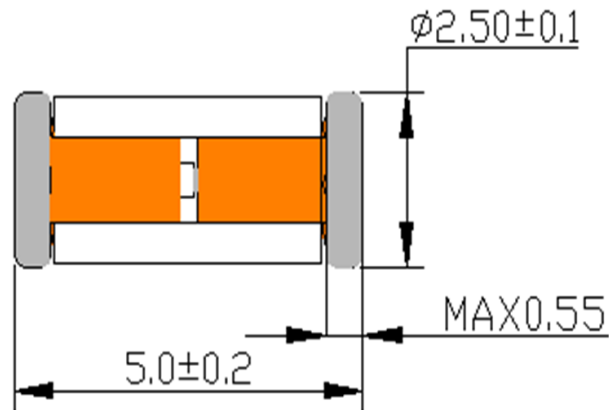


Package Outline Dimensions

in inches (millimeters)

MELF

CASE DIMENSION (MELF Type) Unit mm



Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.15	Released Datasheet
Rev.B	2023.10.31	Modify document format

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