ZMY3.9 - ZMY100

ZENER DIODES

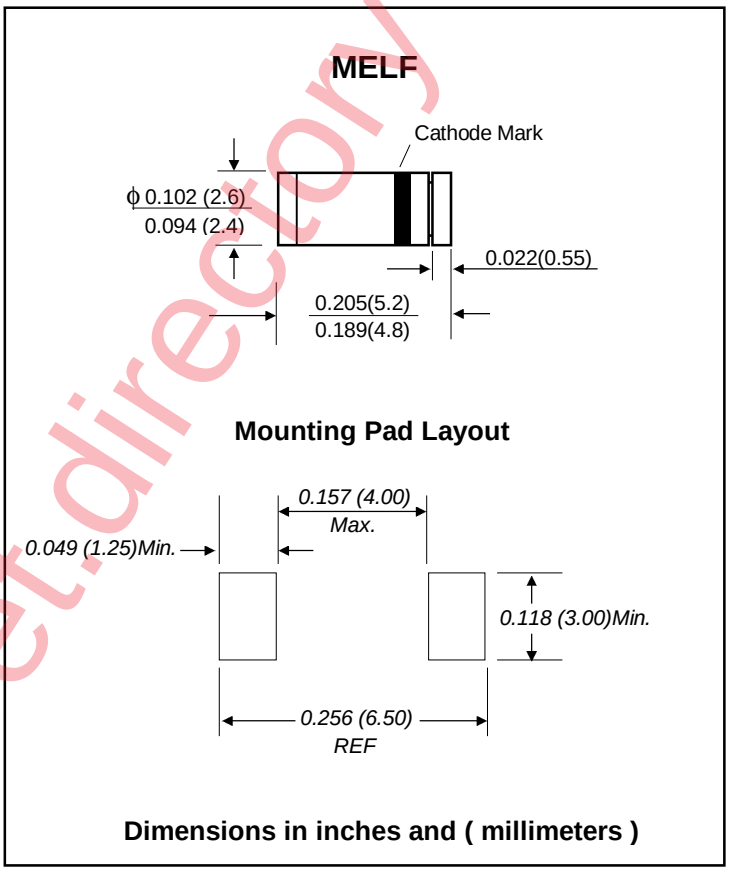
V_Z : 3.9 to 100V
P_D : 1W

FEATURES :

- Silicon planar power zener diodes
- For use in stabilizing and clipping circuits with higher power rating.
- These diodes are also available in the DO-41 case with the type designation ZPY3.6… ZPY100.
- Pb / RoHS Free

MECHANICAL DATA :

* Case : MELF Glass Case
* Weight : 0.25 g (approx.)



Maximum Ratings and Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Power Dissipation	P_D	1(1)	W
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	170(1)	°C/W
Thermal Resistance Junction to Case (Typ.)	$R_{\theta JC}$	60	°C/W
Junction temperature	T_J	175	°C
Storage temperature range	T_S	-65 to + 175	°C

Notes: (1) Valid provided that electrodes are kept at ambient temperature

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ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type	Zener Voltage (1) at I_{ZT} V_z (V)		Dynamic Resistance at I_{ZT} , f = 1kHz	Temp. Coeff. Of Zener Voltage at I_{ZT} a_{VZ} (10^{-4}/°C)		Test Current I_{ZT}	Reverse Voltage at I_R =0.5mA V_R	Asmissible Zener Current(2) I_Z
	min.	max.	rzj (Ω)	min.	max.	(mA)	V_R (V)	(mA)
ZMY3.9	3.7	4.1	4(<7)	-7	2	100	-	203
ZMY4.3	4.0	4.6	4(<7)	-7	3	100	-	182
ZMY4.7	4.4	5.0	4(<7)	-7	4	100	-	165
ZMY5.1	4.8	5.4	2(<5)	-6	5	100	>0.7	150
ZMY5.6	5.2	6.0	1(<2)	-3	5	100	>1.5	135
ZMY6.2	5.8	6.6	1(<2)	-1	6	100	>2.0	128
ZMY6.8	6.4	7.2	1(<2)	0	7	100	>3.0	110
ZMY7.5	7.0	7.9	1(<2)	0	7	100	>5.0	100
ZMY8.2	7.7	8.7	1(<2)	3	8	100	>6.0	89
ZMY9.1	8.5	9.6	2(<4)	3	8	50	>7.0	82
ZMY10	9.4	10.6	2(<4)	5	9	50	>7.5	74
ZMY11	10.4	11.6	3(<7)	5	10	50	>8.5	66
ZMY12	11.4	12.7	3(<7)	5	10	50	>9.0	60
ZMY13	12.4	14.1	4(<9)	5	10	50	>10	55
ZMY15	13.8	15.8	4(<9)	5	10	50	>11	49
ZMY16	15.3	17.1	5(<10)	7	11	25	>12	44
ZMY18	16.8	19.1	5(<11)	7	11	25	>14	40
ZMY20	18.8	21.2	6(<12)	7	11	25	>15	36
ZMY22	20.8	23.3	7(<13)	7	11	25	>17	34
ZMY24	22.8	25.6	8(<14)	7	12	25	>18	29
ZMY27	25.1	28.9	9(<15)	7	12	25	>20	27
ZMY30	28	32	10(<20)	7	12	25	>22.5	25
ZMY33	31	35	11(<20)	7	12	25	>25	22
ZMY36	34	38	25(<60)	7	12	10	>27	20
ZMY39	37	41	30(<60)	8	12	10	>29	18
ZMY43	40	46	35(<80)	8	13	10	>32	17
ZMY47	44	50	40(<80)	8	13	10	>35	15
ZMY51	48	54	45(<100)	8	13	10	>38	14
ZMY56	52	60	50(<100)	8	13	10	>42	13
ZMY62	58	66	60(<130)	8	13	10	>47	11
ZMY68	64	72	65(<130)	8	13	10	>51	10
ZMY75	70	79	70(<160)	8	13	10	>56	9
ZMY82	77	88	80(<160)	8	13	10	>61	8
ZMY91	85	96	120(<250)	9	13	5	>68	7.5
ZMY100	94	106	130(<250)	9	13	5	>75	7

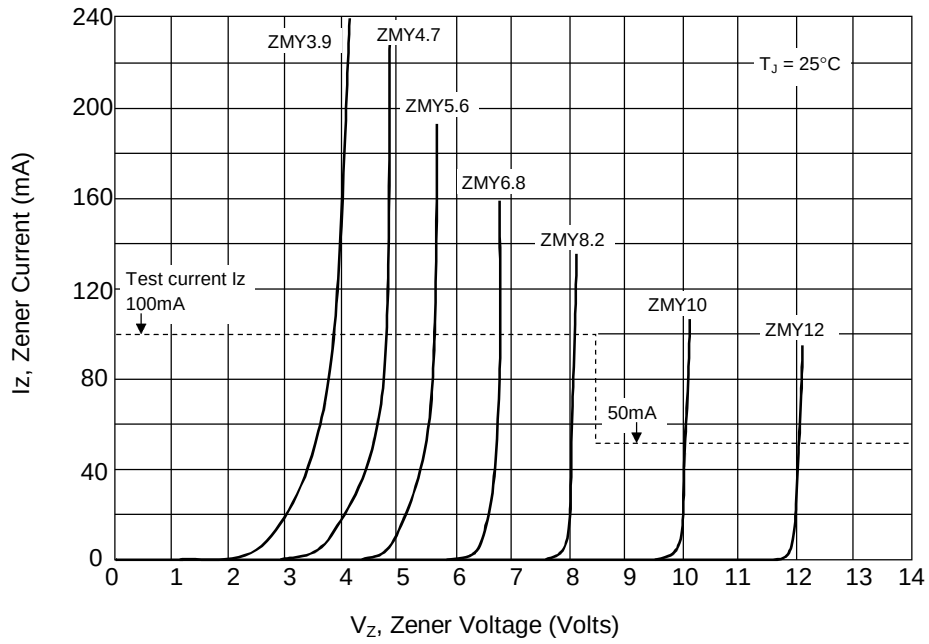
Notes: (1) Tested with pulses tp = 5ms

(2) Valid provided that electrodes are kept at ambient temperature

For devices in glass case MELF with higher Zener voltage but same power dissipation see types ZMU100 … ZMU180

RATING AND CHARACTERISTIC CURVES (ZMY3.9 ~ ZMY100)

Breakdown Characteristics
T_J = Constant (Pulsed)



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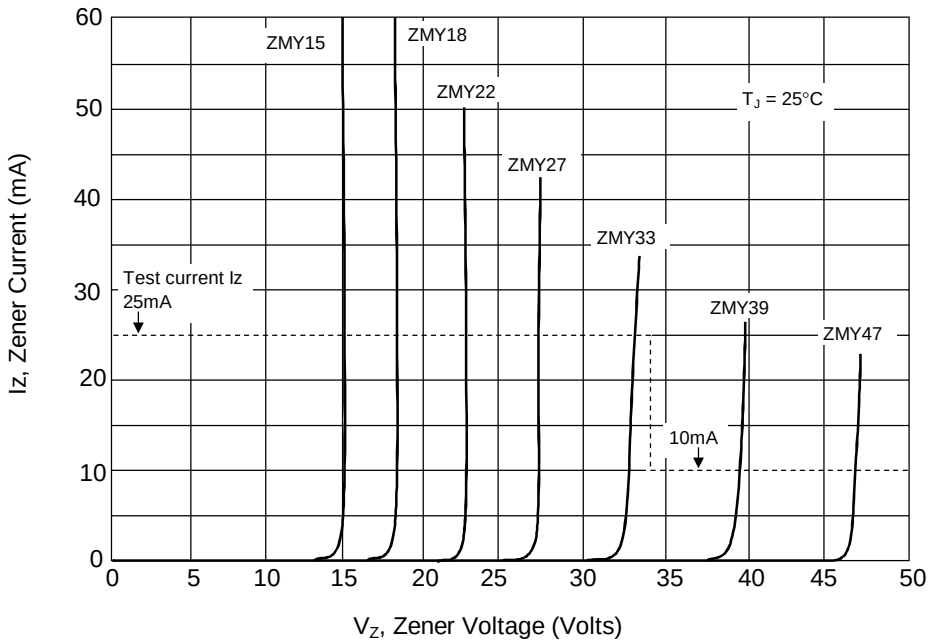

RATING AND CHARACTERISTIC CURVES (ZMY3.9 ~ ZMY100)

Breakdown Characteristics
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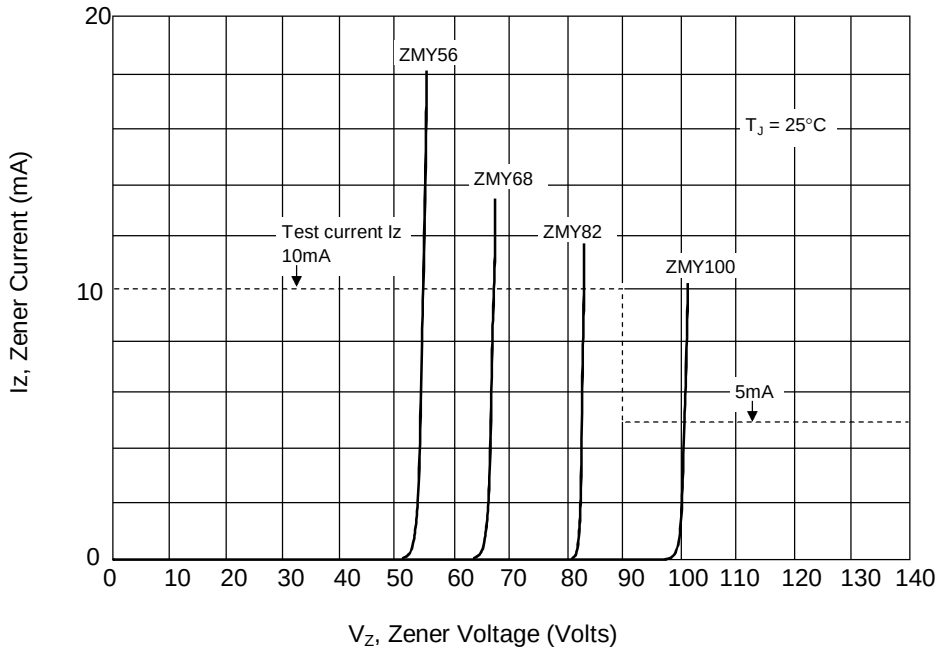

Power Temperature Derating Curve