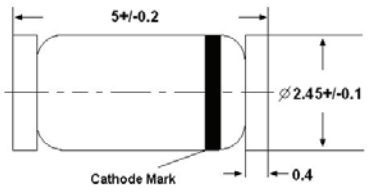
Zener Diodes

ZM3C Series

LL-41



Glass case MELF
Dimensions in mm

■ Features

- Total power dissipation: Max. 2 W.
- Wide zener reverse voltage range 3.6V to 75V.
- Small plastic package suitable for surface mounted design.
- Tolerance approximately±5%

■ Absolute Maximum Ratings @ 25°C Unless Otherwise Specified

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	2	W
Forward Voltage at I_F = 200 mA	V_F	1.5	V
Typical thermal resistance juncting to ambient [1)]	$R_{\theta JA}$	72.5	℃/W
Operating and Storage Temperature Range	T_j,T_{stg}	-55 to +150	℃

1). Thermal resistance from junction to ambient at P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper areas pads.

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■ Electrical Characteristics Ta = 25℃

Type	Zener Voltage [1]				Dynamic Resistance				Reverse Current		Maximum DC Zener Current [2]
	V_{Znom}	V_{ZT}		at I_{ZT}	Z_{ZT}	at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R	
	(V)	Min. (V)	Max. (V)	(mA)	Max. (Ω)	(mA)	Max. (Ω)	(mA)	Max. (μA)	(V)	I_{ZM} (mA)
ZM3C3V6	3.6	3.42	3.78	104.2	9	104.2	500	1	75	1	416
ZM3C3V9	3.9	3.71	4.1	96.1	7.5	96.1	500	1	25	1	384
ZM3C4V3	4.3	4.09	4.52	87.2	6	87.2	500	1	5	1	348
ZM3C4V7	4.7	4.47	4.94	79.8	5	79.8	500	1	5	1.5	319
ZM3C5V1	5.1	4.85	5.36	73.5	4	73.5	350	1	5	2	294
ZM3C5V6	5.6	5.32	5.88	66.9	2	66.9	250	1	5	3	267
ZM3C6V2	6.2	5.89	6.51	60.5	2	60.5	200	1	5	4	241
ZM3C6V8	6.8	6.46	7.14	55.1	2.5	55.1	200	1	5	5.2	220
ZM3C7V5	7.5	7.13	7.88	50	3	50	400	0.5	5	6	200
ZM3C8V2	8.2	7.79	8.61	45.7	3.5	45.7	400	0.5	5	6.5	182
ZM3C9V1	9.1	8.65	9.56	41.2	4	41.2	500	0.5	5	7	164
ZM3C10	10	9.5	10.5	37.5	4.5	37.5	500	0.25	5	8	150
ZM3C11	11	10.45	11.55	34.1	5.5	34.1	550	0.25	1	8.4	136
ZM3C12	12	11.4	12.6	31.2	6.5	31.2	550	0.25	1	9.1	125
ZM3C13	13	12.35	13.65	28.8	7	28.8	550	0.25	1	9.9	115
ZM3C15	15	14.25	15.75	25	9	25	600	0.25	1	11.4	100
ZM3C16	16	15.2	16.8	23.4	10	23.4	600	0.25	1	12.2	93
ZM3C18	18	17.1	18.9	20.8	12	20.8	650	0.25	1	13.7	83
ZM3C20	20	19	21	18.7	14	18.7	650	0.25	1	15.2	75
ZM3C22	22	20.9	23.1	17	17.5	17	650	0.25	1	16.7	68
ZM3C24	24	22.8	25.2	15.6	19	15.6	700	0.25	1	18.2	62
ZM3C27	27	25.65	28.35	13.9	23	13.9	700	0.25	1	20.6	55
ZM3C30	30	28.5	31.5	12.5	28	12.5	750	0.25	1	22.8	50
ZM3C33	33	31.35	34.65	11.4	33	11.4	800	0.25	1	25.1	45
ZM3C36	36	34.2	37.8	10.4	38	10.4	850	0.25	1	27.4	41
ZM3C39	39	37.05	40.95	9.6	45	9.6	900	0.25	1	29.7	38
ZM3C43	43	40.85	45.15	8.7	53	8.7	950	0.25	1	32.7	34
ZM3C47	47	44.65	49.35	8	67	8	1000	0.25	1	35.8	31
ZM3C51	51	48.45	53.55	7.3	70	7.3	1100	0.25	1	38.8	29
ZM3C56	56	53.2	58.8	6.7	86	6.7	1300	0.25	1	42.6	26
ZM3C62	62	58.9	65.1	6	100	6	1500	0.25	1	47.1	24
ZM3C68	68	64.6	71.4	5.5	120	5.5	1700	0.25	1	51.7	22
ZM3C75	75	71.25	78.75	5	140	5	2000	0.25	1	56	20

[1] Tested with pulses tp = 20 ms.
[2] Valid provided that electrodes are kept at ambient temperature.

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■ Typical Characterisitics

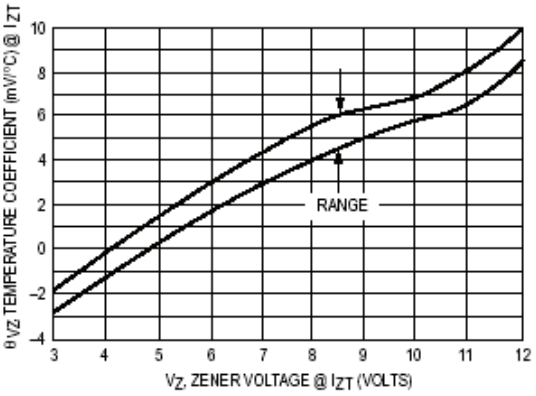

Figure 1 . Units To 12 Volts

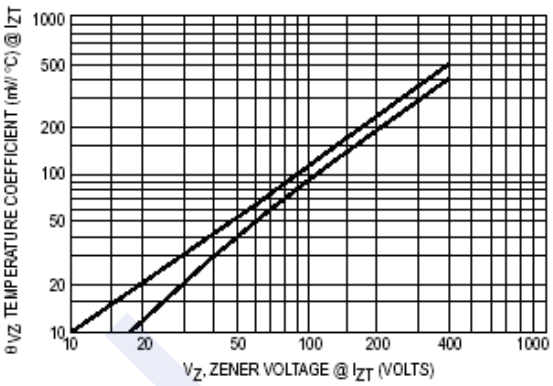

Figure 2 . Units 10 To 400 Volts

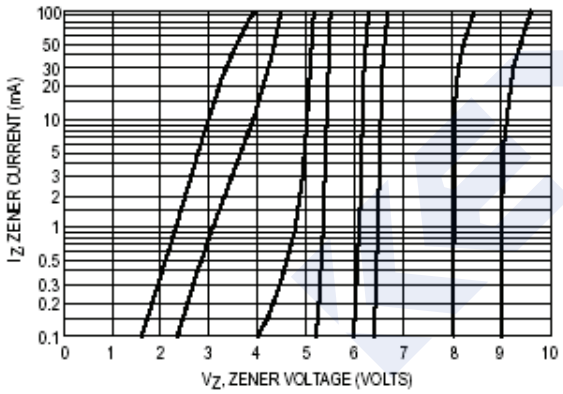

Figure 3 . VZ = 3.3 thru 10 Volts

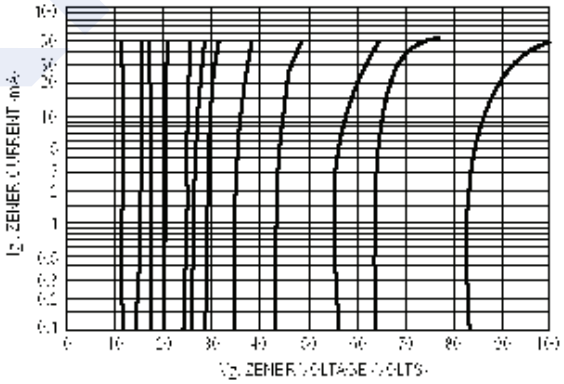

Figure 4 . VZ = 12 thru 82 Volts

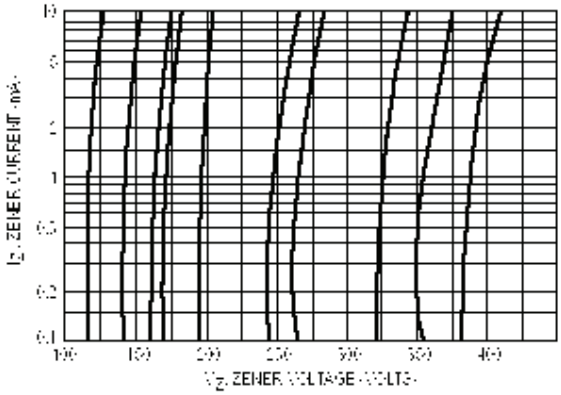

Figure 5 . VZ = 100 thru 400 Volts