

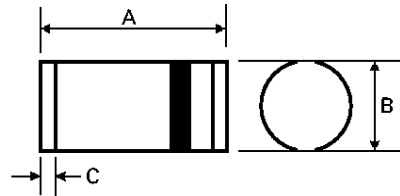


# ZM4730A - ZM4764A

## 1.0W SURFACE MOUNT ZENER DIODE

### Features

- 1.0W Power Dissipation
- 3.9V - 100V Nominal Zener Voltages
- Standard  $V_Z$  Tolerance is 5%



### Mechanical Data

- Case: MELF, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Approx. Weight: 0.25 grams

MELF		
Dim	Min	Max
A	4.80	5.20
B	2.40	2.60
C	0.55 Nominal	
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Zener Current (see Table page 2)	$I_Z$	$P_d/V_Z$	mA
Power Dissipation (Note 1) @ $T_A = 25^\circ\text{C}$	$P_d$	1	W
Thermal Resistance - Junction to Ambient Air (Note 1)	$R_{\theta JA}$	170	K/W
Forward Voltage @ $I_F = 200\text{ mA}$	$V_F$	1.2	V
Operating & Storage Temperature Range	$T_j, T_{STG}$	-65 to +200	$^\circ\text{C}$

Type Number	Nominal Zener Voltage (2)	Test Current	Maximum Zener Impedance (3)			Maximum Reverse Leakage Current		Max Surge Current 8.3ms	Maximum Zener Current
	V <sub>Z</sub> @ I <sub>ZT</sub>	I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub>	@ V <sub>R</sub>	I <sub>ZS</sub>	I <sub>ZM</sub>
	V	mA	Ω	Ω	mA	μA	V	mA	mA
ZM4730A	3.9	64	9.0	400	1.0	100	1.0	1190	234
ZM4731A	4.3	58	9.0	400	1.0	50	1.0	1070	217
ZM4732A	4.7	53	8.0	500	1.0	10	1.0	970	193
ZM4733A	5.1	49	7.0	550	1.0	10	1.0	890	178
ZM4734A	5.6	45	5.0	600	1.0	10	2.0	810	162
ZM4735A	6.2	41	2.0	700	1.0	10	3.0	730	146
ZM4736A	6.8	37	3.5	700	1.0	10	4.0	660	133
ZM4737A	7.5	34	4.0	700	0.5	10	5.0	605	121
ZM4738A	8.2	31	4.5	700	0.5	10	6.0	550	110
ZM4739A	9.1	28	5.0	700	0.5	10	7.0	500	100
ZM4740A	10	25	7.0	700	0.25	10	7.6	454	91
ZM4741A	11	23	8.0	700	0.25	5.0	8.4	414	83
ZM4742A	12	21	9.0	700	0.25	5.0	9.1	380	76
ZM4743A	13	19	10	700	0.25	5.0	9.9	344	69
ZM4744A	15	17	14	700	0.25	5.0	11.4	304	61
ZM4745A	16	15.5	16	700	0.25	5.0	12.2	285	57
ZM4746A	18	14	20	750	0.25	5.0	13.7	250	50
ZM4747A	20	12.5	22	750	0.25	5.0	15.2	225	45
ZM4748A	22	11.5	23	750	0.25	5.0	16.7	205	41
ZM4749A	24	10.5	25	750	0.25	5.0	18.2	190	38
ZM4750A	27	9.5	35	750	0.25	5.0	20.6	170	34
ZM4751A	30	8.5	40	1000	0.25	5.0	22.8	150	30
ZM4752A	33	7.5	45	1000	0.25	5.0	25.1	135	27
ZM4753A	36	7.0	50	1000	0.25	5.0	27.4	125	25
ZM4754A	39	6.5	60	1000	0.25	5.0	29.7	115	23
ZM4755A	43	6.0	70	1500	0.25	5.0	32.7	110	22
ZM4756A	47	5.5	80	1500	0.25	5.0	35.8	95	19
ZM4757A	51	5.0	95	1500	0.25	5.0	38.8	90	18
ZM4758A	56	4.5	110	2000	0.25	5.0	42.6	80	16
ZM4759A	62	4.0	125	2000	0.25	5.0	47.1	70	14
ZM4760A	68	3.7	150	2000	0.25	5.0	51.7	65	13
ZM4761A	75	3.3	175	2000	0.25	5.0	56.0	60	12
ZM4762A	82	3.0	200	3000	0.25	5.0	62.2	55	11
ZM4763A	91	2.8	250	3000	0.25	5.0	69.2	50	10
ZM4764A	100	2.5	350	3000	0.25	5.0	76.0	45	9.0

- Notes:
1. Valid provided that electrodes of the case are kept at ambient temperature.
  2. Measured under thermal equilibrium and DC (I<sub>ZT</sub>) test conditions.
  3. The Zener impedance is derived from the 60Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed on I<sub>ZT</sub> or I<sub>ZK</sub>. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

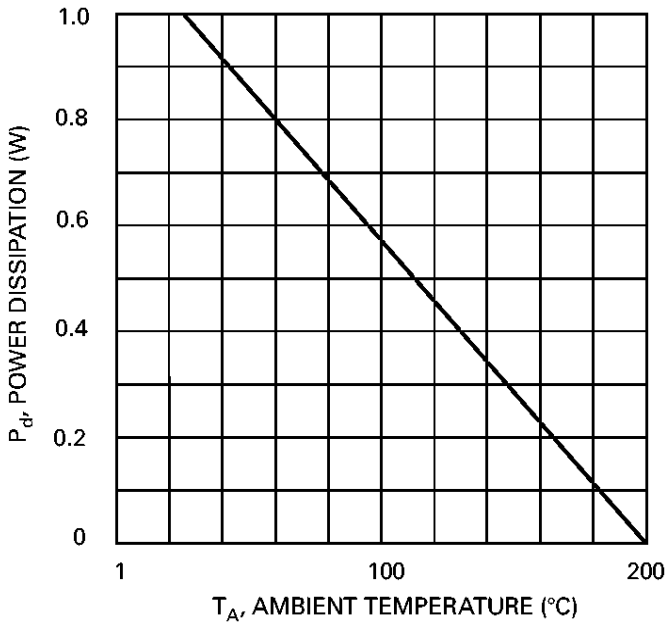


Fig. 1, Power Derating Curve