

# ZM4728 - ZM4764

$V_Z$  : 3.3 to 100V

$P_D$  : 1W

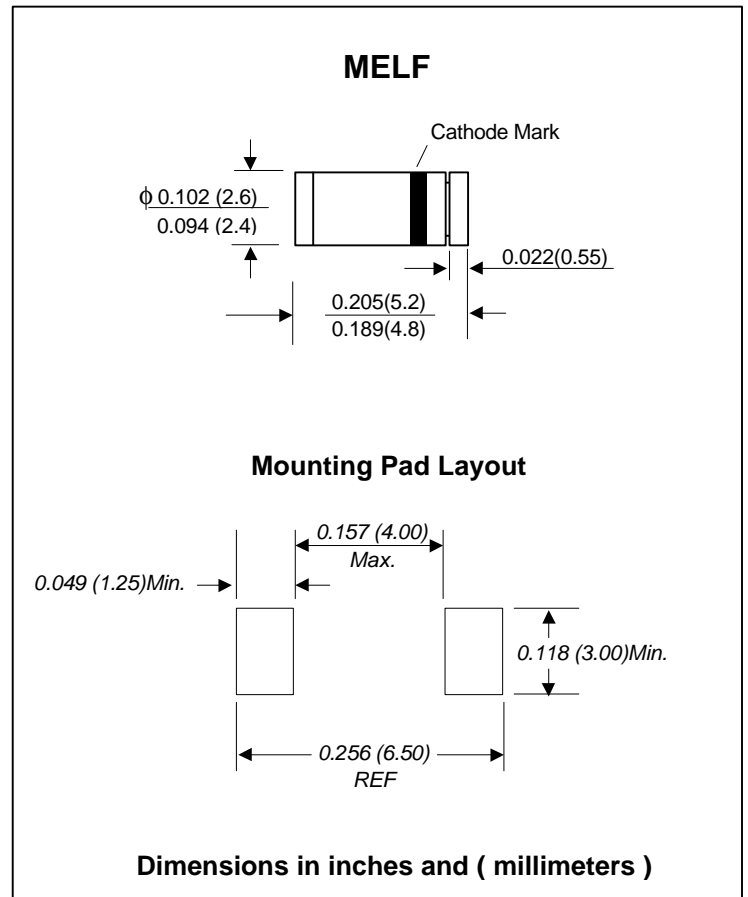
## FEATURES :

- Silicon planar power zener diodes
- For use in stabilizing and clipping circuits with higher power rating.
- Standard zener voltage tolerance is  $\pm 10\%$ .
- Other zener voltages and tolerances are available upon request.
- These diodes are also available in the DO-41 case with type designation 1N4728 ... 1N4764

## MECHANICAL DATA :

- \* Case : MELF Glass Case
- \* Weight : 0.25 g (approximately)

## ZENER DIODES



## Maximum Ratings and Thermal Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Maximum Forward Voltage at $I_F = 200 \text{ mA}$ .	$V_F$	1.2	V
Power Dissipation	$P_D$	1 <sup>(1)</sup>	W
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	170 <sup>(1)</sup>	°C/W
Junction temperature	$T_J$	-65 to + 200	°C
Storage temperature range	$T_S$	-65 to + 200	°C

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

## ELECTRICAL CHARACTERISTICS

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

Type	Nominal Zener Voltage		Maximum Zener Impedance <sup>(1)</sup>			Maximum Reverse Leakage Current		Maximum DC Zener Current
	$V_Z @ I_{ZT}$	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R @ V_R$		$I_{ZM}^{(2)}$
	(V)	(mA)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu\text{A}$ )	(V)	(mA)
ZM4728	3.3	76.0	10	400	1.0	100	1.0	276
ZM4729	3.6	69.0	10	400	1.0	100	1.0	252
ZM4730	3.9	64.0	9.0	400	1.0	50	1.0	234
ZM4731	4.3	58.0	9.0	400	1.0	10	1.0	217
ZM4732	4.7	53.0	8.0	500	1.0	10	1.0	193
ZM4733	5.1	49.0	7.0	550	1.0	10	1.0	178
ZM4734	5.6	45.0	5.0	600	1.0	10	2.0	162
ZM4735	6.2	41.0	2.0	700	1.0	10	3.0	146
ZM4736	6.8	37.0	3.5	700	1.0	50	4.0	133
ZM4737	7.5	34.0	4.0	700	0.5	50	5.0	121
ZM4738	8.2	31.0	4.5	700	0.5	50	6.0	110
ZM4739	9.1	28.0	5.0	700	0.5	50	7.0	100
ZM4740	10	25.0	7.0	700	0.25	50	7.6	91
ZM4741	11	23.0	8.0	700	0.25	50	8.4	83
ZM4742	12	21.0	9.0	700	0.25	5.0	9.1	76
ZM4743	13	19.0	10	700	0.25	5.0	9.9	69
ZM4744	15	17.0	14	700	0.25	5.0	11.4	61
ZM4745	16	15.5	16	700	0.25	5.0	12.2	57
ZM4746	18	14.0	20	750	0.25	5.0	13.7	50
ZM4747	20	12.5	22	750	0.25	5.0	15.2	45
ZM4748	22	11.5	23	750	0.25	5.0	16.7	41
ZM4749	24	10.5	25	750	0.25	5.0	18.2	38
ZM4750	27	9.5	35	750	0.25	5.0	20.6	34
ZM4751	30	8.5	40	1000	0.25	5.0	22.8	30
ZM4752	33	7.5	45	1000	0.25	5.0	25.1	27
ZM4753	36	7.0	50	1000	0.25	5.0	27.4	25
ZM4754	39	6.5	60	1000	0.25	5.0	29.7	23
ZM4755	43	6.0	70	1500	0.25	5.0	32.7	22
ZM4756	47	5.5	80	1500	0.25	5.0	35.8	19
ZM4757	51	5.0	95	1500	0.25	5.0	38.8	18
ZM4758	56	4.5	110	2000	0.25	5.0	42.6	16
ZM4759	62	4.0	125	2000	0.25	5.0	47.1	14
ZM4760	68	3.7	150	2000	0.25	5.0	51.7	13
ZM4761	75	3.3	175	2000	0.25	5.0	56.0	12
ZM4762	82	3.0	200	3000	0.25	5.0	62.2	11
ZM4763	91	2.8	250	3000	0.25	5.0	69.2	10
ZM4764	100	2.5	350	3000	0.25	5.0	76.0	9.0

**Notes:** (1) The Zener impedance is derived from the 1KHZ 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  $I_{ZK}$ . Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units

(2) Valid provided that electrodes at a distance of 10mm from case are kept at ambient temperature

(3) The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 10\%$ .