

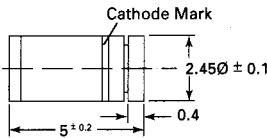
# ZM 4728 ... ZM 4764

## Silicon Planar Power Zener Diodes

for use in stabilizing and clipping circuits with high power rating.  
Standard Zener voltage toerance is  $\pm 10\%$ . Add suffix "A" for  $\pm 5\%$  tolerance. Other tolerances available upon request.

These diodes are also available in DO-41 case with the type designation 1N4728 ... 1N4764

These diodes are delivered taped.  
Details see "Taping".



Glass case MELF

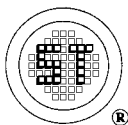
Weight approx. 0.25g  
Dimensions in mm

## Absolute Maximum Ratings ( $T_a = 25\text{ }^{\circ}\text{C}$ )

	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Power Dissipation at $T_{amb} = 25\text{ }^{\circ}\text{C}$	$P_{tot}$	1 <sup>1)</sup>	W
Junction Temperature	$T_j$	+175	$^{\circ}\text{C}$
Storage Temperature Range	$T_s$	-65 to + 175	$^{\circ}\text{C}$
<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature			

## Characteristics at $T_{amb} = 25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{thA}$	-	-	170 <sup>1)</sup>	K/W
Forward Voltage at $I_F = 200\text{ mA}$	$V_F$	-	-	1.2	V
<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature					



**SEMTECH ELECTRONICS LTD.**  
( wholly owned subsidiary of **HONEY TECHNOLOGY LTD.** )



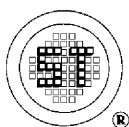
# ZM 4728 ... ZM 4764

Type	Nominal Zener voltage <sup>3)</sup> at $I_{ZT}$ $V_Z$ V	Test current $I_{ZT}$ mA	Maximum Zener Impedance <sup>1)</sup>			Maximum reverse leakage current		Surge current at $T_A = 25^\circ\text{C}$ $I_R$ mA	Maximum regulator current <sup>2)</sup> $I_{ZM}$ mA
			at $I_{ZT}$ $Z_{ZT} \Omega$	$Z_{ZK} \Omega$	at $I_{ZK}$ mA	$I_R \mu\text{A}$	at $V_R$ V		
ZM4728	3.3	76	10	400	1.0	150	1	1375	275
ZM4729	3.6	69	10	400	1.0	100	1	1260	252
ZM4730	3.9	64	9	400	1.0	100	1	1190	234
ZM4731	4.3	58	9	400	1.0	50	1	1070	217
ZM4732	4.7	53	8	500	1.0	10	1	970	193
ZM4733	5.1	49	7	550	1.0	10	1	890	178
ZM4734	5.6	45	5	600	1.0	10	2	810	162
ZM4735	6.2	41	2	700	1.0	10	3	730	146
ZM4736	6.8	37	3.5	700	1.0	10	4	660	133
ZM4737	7.5	34	4.0	700	0.5	10	5	605	121
ZM4738	8.2	31	4.5	700	0.5	10	6	550	110
ZM4739	9.1	28	5.0	700	0.5	10	7	500	100
ZM4740	10	25	7	700	0.25	10	7.6	454	91
ZM4741	11	23	8	700	0.25	5	8.4	414	83
ZM4742	12	21	9	700	0.25	5	9.1	380	76
ZM4743	13	19	10	700	0.25	5	9.9	344	69
ZM4744	15	17	14	700	0.25	5	11.4	304	61
ZM4745	16	15.5	16	700	0.25	5	12.2	285	57
ZM4746	18	14	20	750	0.25	5	13.7	250	50
ZM4747	20	12.5	22	750	0.25	5	15.2	225	45
ZM4748	22	11.5	23	750	0.25	5	16.7	205	41
ZM4749	24	10.5	25	750	0.25	5	18.2	190	38
ZM4750	27	9.5	35	750	0.25	5	20.6	170	34
ZM4751	30	8.5	40	1000	0.25	5	22.8	150	30
ZM4752	33	7.5	45	1000	0.25	5	25.1	135	27
ZM4753	36	7.0	50	1000	0.25	5	27.4	125	25
ZM4754	39	6.5	60	1000	0.25	5	29.7	115	23
ZM4755	43	6.0	70	1500	0.25	5	32.7	110	22
ZM4756	47	5.5	80	1500	0.25	5	35.8	95	19
ZM4757	51	5.0	95	1500	0.25	5	38.8	90	18
ZM4758	56	4.5	110	2000	0.25	5	42.6	80	16
ZM4759	62	4.0	125	2000	0.25	5	47.1	70	14
ZM4760	68	3.7	150	2000	0.25	5	51.7	65	13
ZM4761	75	3.3	175	2000	0.25	5	56.0	60	12
ZM4762	82	3.0	200	3000	0.25	5	62.2	55	11
ZM4763	91	2.8	250	3000	0.25	5	69.2	50	10
ZM4764	100	2.5	350	3000	0.25	5	76.0	45	9

<sup>1)</sup> The Zener Impedance is derived from the 60 Hz 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.

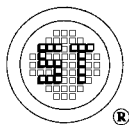
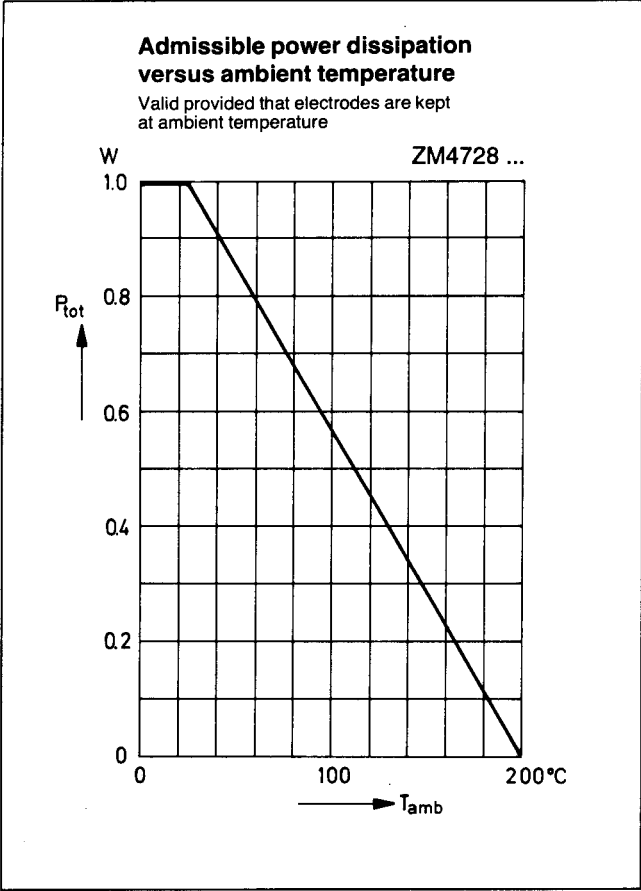
<sup>2)</sup> Valid provided that electrodes are kept at ambient temperature.

<sup>3)</sup> Measured under thermal equilibrium and DC test conditions.



**SEMTECH ELECTRONICS LTD.**  
( wholly owned subsidiary of HONEY TECHNOLOGY LTD. )





**SEMTECH ELECTRONICS LTD.**  
( wholly owned subsidiary of **HONEY TECHNOLOGY LTD.** )

