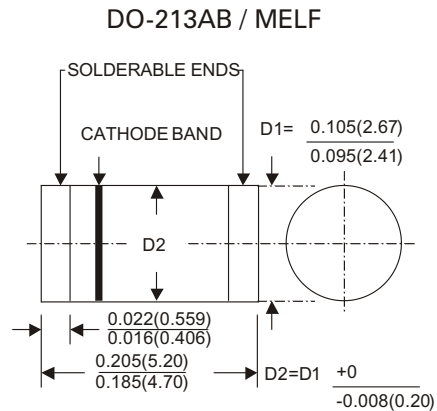


# ZM4728 thru ZM4764

## SILICON PLANAR POWER ZENER DIODES



Dimension in inches (millimeters)

### FEATURES

- For use in stabilizing and clipping circuits with high power Rating. Standard Zener Voltage tolerance is  $\pm 10\%$ . Add suffix "A" for  $\pm 5\%$  tolerance and suffix "B" for  $\pm 2\%$  tolerance. Other tolerances available are upon request.

### MECHANICAL DATA

These diodes are also available in do-41 case with the type Designation 1N4728...1N4767

These diodes are delivered taped.  
Details see "Taping"

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

	SYMBOL	VALUE	UNITS
Zener Current see Table "Characteristics"			
Power Dissipation	$P_{tot}$	1 <sup>1)</sup>	W
Junction Temperature	$T_J$	175	$^\circ\text{C}$
Storage Temperature range	$T_S$	-65 to +175	$^\circ\text{C}$
1) Valid provided that electrodes are kept at ambient temperature			

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

	SYMBOL	Min	Typ	Max	UNITS
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
1) Valid provided that electrodes are kept at ambient temperature					

# ZM4728 thru ZM4764

## SILICON PLANAR POWER ZENER DIODES

### ELECTRICAL CHARACTERISTICS (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Type	Nominal Zener Voltage <sup>3)</sup>	Test Current	Maximum Zener Impedance <sup>1)</sup>			Maximum Reverse Leakage Current		Surge Current	Maximum Regulator Current <sup>2)</sup>
	at $I_{ZT}$ $V_Z$ V	$I_{ZT}$ mA	at $I_{ZT}$ $V_Z$ $\Omega$	$V_Z$ K $\Omega$	at $I_{ZK}$ mA	$I_R$ $\mu$ A	at $V_R$ V	At $T_A=25^\circ\text{C}$ $I_R$ mA	$I_{ZM}$ mA
ZM4728	3.3	76	10	400	1	150	1	1375	275
ZM4729	3.6	79	10	400	1	100	1	1260	252
ZM4730	3.9	64	9	400	1	100	1	1190	234
ZM4731	4.3	58	9	400	1	50	1	1070	217
ZM4732	4.7	53	8	500	1	10	1	970	193
ZM4733	5.1	49	7	550	1	10	1	890	178
ZM4734	5.6	45	5	600	1	10	2	810	162
ZM4735	6.2	41	2	700	1	10	3	730	146
ZM4736	6.8	37	3.5	700	1	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	134
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	45	9

1) 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 ( $I_{ZT}$  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 are kept at ambient temperature.

3) Measured under thermal equilibrium and DC test conditions.

# ZM4728 thru ZM4764

## SILICON PLANAR POWER ZENER DIODES

### RATING AND CHARACTERISTICS CURVES ZM4728 THRU ZM4764

Admissible power dissipation  
versus ambient temperature  
Valid provided that electrodes are kept  
at ambient temperature

