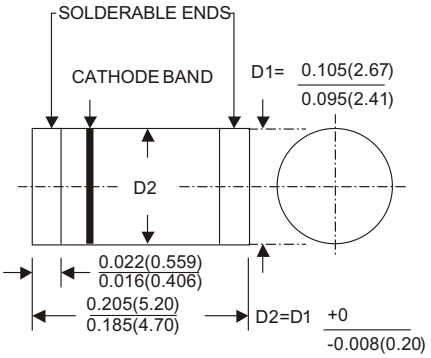
ZM4728 thru ZM4764

SILICON PLANAR POWER ZENER DIODES



DO-213AB / MELF



Dimension in inches (millimeters)

FEATURES

- For use in stabilizing and clipping circuits with high power Rating. Standard Zener Voltage tolerance is ± 10%. Add suffix "A" for ± 5% tolerance and suffix "B" for ± 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°C)

	SYMBOL	VALUE	UNITS
Zener Current see Table "Characteristics"			
Power Dissipation	P_{tot}	1 [1)]	W
Junction Temperature	T_J	175	°C
Storage Temperature range	T_S	-65 to +175	°C
1)Valid provided that electrodes are kept at ambient temperature			

Characteristics at T_{amb}=25°C

	SYMBOL	Min	Typ	Max	UNITS
Thermal Resistance Junction to Ambient Air	R_{thA}			170 [1)]	K/W
Forward Voltage at I_F=200mA	V_F			1.2	V
1) Valid provided that electrodes are kept at ambient temperature					

SILICON PLANAR POWER ZENER DIODES

ELECTRICAL CHARACTERISTICS (at T_A=25°C unless otherwise noted)

Type	Nominal Zener Voltage[3]	Test Current	Maximum Zener Impedance[1]			Maximum Reverse Leakage Current		Surge Current	Maximum Regulator Current[2]
	at I_{ZT} V_ZV	I_{ZT} mA	at I_{ZT} V_Z Ω	V_{ZK} Ω	at I_{ZK} mA	I_R μA	at V_R V	At T_A=25°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.

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

