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MZ4728 - MZ4764
MZ1110 - MZ1200

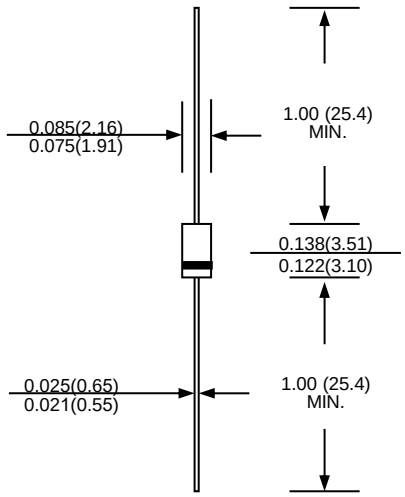
SILICON ZENER DIODES

V_Z : 3.3 - 200 Volts
P_D : 1 Watt

FEATURES :
* Complete voltage range 3.3 to 200 Volts
* High peak reverse power dissipation
* High reliability
* Low leakage current
* Pb / RoHS Free

MECHANICAL DATA :
* Case : M1A Molded plastic
* Epoxy : UL94V-O rate flame retardant
* Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.20 gram (approximately)

M1A



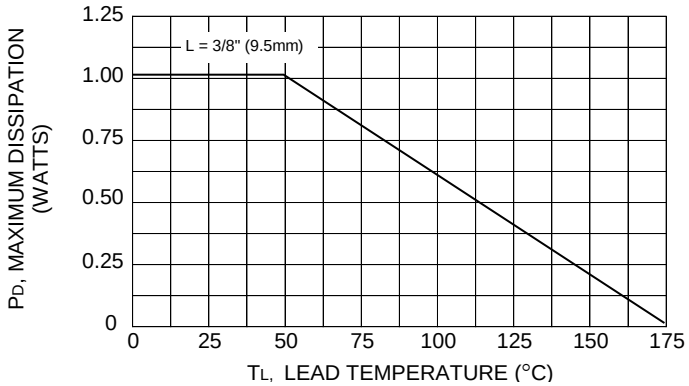
Dimensions in inches and (millimeters)

MAXIMUM RATINGS
Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at T_L = 50 °C (Note1)	P_D	1.0	Watt
Maximum Forward Voltage at I_F = 200 mA	V_F	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note2)	$R_{\Theta JA}$	170	K / W
Junction Temperature Range	T_J	- 55 to + 175	°C
Storage Temperature Range	T_{STG}	- 55 to + 175	°C

Notes :
(1) T_L = Lead temperature at 3/8 " (9.5mm) from body
(2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.

Fig. 1 POWER TEMPERATURE DERATING CURVE



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ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

Type No.	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current
	V_Z (1) @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @ V_R		I_{ZM}	I_{RM} (2)
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(mApk)
MZ4728	3.3	76.0	10	400	1.0	100	1.0	276	1380
MZ4729	3.6	69.0	10	400	1.0	100	1.0	252	1260
MZ4730	3.9	64.0	9.0	400	1.0	50	1.0	234	1190
MZ4731	4.3	58.0	9.0	400	1.0	10	1.0	217	1070
MZ4732	4.7	53.0	8.0	500	1.0	10	1.0	193	970
MZ4733	5.1	49.0	7.0	550	1.0	10	1.0	178	890
MZ4734	5.6	45.0	5.0	600	1.0	10	2.0	162	810
MZ4735	6.2	41.0	2.0	700	1.0	10	3.0	146	730
MZ4736	6.8	37.0	3.5	700	1.0	10	4.0	133	660
MZ4737	7.5	34.0	4.0	700	0.5	10	5.0	121	605
MZ4738	8.2	31.0	4.5	700	0.5	10	6.0	110	550
MZ4739	9.1	28.0	5.0	700	0.5	10	7.0	100	500
MZ4740	10	25.0	7.0	700	0.25	10	7.6	91	454
MZ4741	11	23.0	8.0	700	0.25	5.0	8.4	83	414
MZ4742	12	21.0	9.0	700	0.25	5.0	9.1	76	380
MZ4743	13	19.0	10	700	0.25	5.0	9.9	69	344
MZ4744	15	17.0	14	700	0.25	5.0	11.4	61	305
MZ4745	16	15.5	16	700	0.25	5.0	12.2	57	285
MZ4746	18	14.0	20	750	0.25	5.0	13.7	50	250
MZ4747	20	12.5	22	750	0.25	5.0	15.2	45	225
MZ4748	22	11.5	23	750	0.25	5.0	16.7	41	205
MZ4749	24	10.5	25	750	0.25	5.0	18.2	38	190
MZ4750	27	9.5	35	750	0.25	5.0	20.6	34	170
MZ4751	30	8.5	40	1000	0.25	5.0	22.8	30	150
MZ4752	33	7.5	45	1000	0.25	5.0	25.1	27	135
MZ4753	36	7.0	50	1000	0.25	5.0	27.4	25	125
MZ4754	39	6.5	60	1000	0.25	5.0	29.7	23	115
MZ4755	43	6.0	70	1500	0.25	5.0	32.7	22	110
MZ4756	47	5.5	80	1500	0.25	5.0	35.8	19	95
MZ4757	51	5.0	95	1500	0.25	5.0	38.8	18	90
MZ4758	56	4.5	110	2000	0.25	5.0	42.6	16	80
MZ4759	62	4.0	125	2000	0.25	5.0	47.1	14	70
MZ4760	68	3.7	150	2000	0.25	5.0	51.7	13	65
MZ4761	75	3.3	175	2000	0.25	5.0	56.0	12	60
MZ4762	82	3.0	200	3000	0.25	5.0	62.2	11	55
MZ4763	91	2.8	250	3000	0.25	5.0	69.2	10	50
MZ4764	100	2.5	350	3000	0.25	5.0	76.0	9.0	45
MZ1110	110	2.3	450	4000	0.25	5.0	83.6	8.6	40
MZ1120	120	2.0	550	4500	0.25	5.0	91.2	7.8	37
MZ1130	130	1.9	700	5000	0.25	5.0	98.8	7.0	34
MZ1150	150	1.7	1000	6000	0.25	5.0	114.0	6.4	30
MZ1160	160	1.6	1100	6500	0.25	5.0	121.6	5.8	28
MZ1180	180	1.4	1200	7000	0.25	5.0	136.8	5.2	25
MZ1200	200	1.2	1900	9990	0.25	5.0	152.0	4.7	22

Notes :

(1) The type number listed have a standard tolerance on the nominal zener voltage of ± 10%.
Suffix "A" indicates ± 5% tolerance, suffix "C" indicates ± 2% tolerance.

(2) The revese surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC Method

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