MZ85C3V0~MZ85C200

SILICON ZENER DIODES

V_Z : 3.0 - 200 Volts
P_D : 1.3 Watts

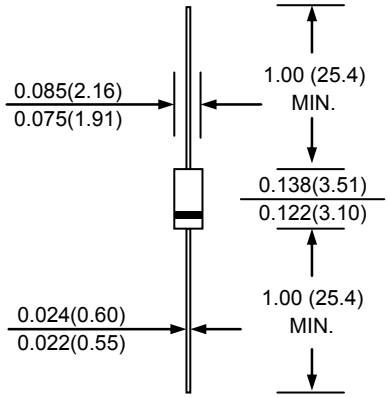
FEATURES :

* Complete Voltage Range 3.0 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.

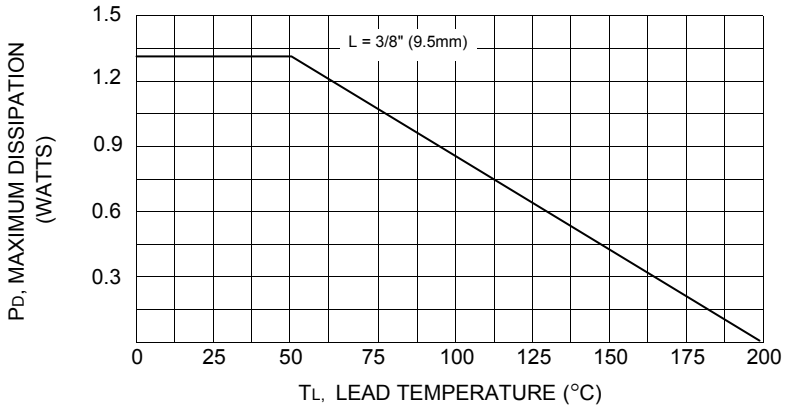
Rating	Symbol	Value	Unit
DC Power Dissipation at T_L = 50 °C (Note1)	P_D	1.3	W
Maximum Forward Voltage at I_F = 200 mA	V_F	1.2	V
Maximum Thermal Resistance Junction to Ambient Air (Note2)	$R_{\Theta JA}$	130	K / W
Junction Temperature Range	T_J	- 65 to + 200	°C
Storage Temperature Range	T_{STG}	- 65 to + 200	°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



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

TYPE	Nominal Zener Voltage		Maximum Zener Impedance			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}
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
MZ85C3V0	3.0	80	20	400	1.0	100	1.0	340
MZ85C3V3	3.3	80	20	400	1.0	40	1.0	320
MZ85C3V6	3.6	70	20	500	1.0	20	1.0	290
MZ85C3V9	3.9	60	15	500	1.0	10	1.0	280
MZ85C4V3	4.3	50	13	500	1.0	3.0	1.0	250
MZ85C4V7	4.7	45	13	500	1.0	3.0	1.0	215
MZ85C5V1	5.1	45	10	500	1.0	1.0	1.5	200
MZ85C5V6	5.6	45	7.0	400	1.0	1.0	2.0	190
MZ85C6V2	6.2	35	4.0	300	1.0	1.0	3.0	170
MZ85C6V8	6.8	35	3.5	300	1.0	50	4.0	155
MZ85C7V5	7.5	35	3.0	200	0.5	50	4.5	140
MZ85C8V2	8.2	25	5.0	200	0.5	50	6.2	130
MZ85C9V1	9.1	25	5.0	200	0.5	50	6.8	120
MZ85C10	10	25	7.0	200	0.5	50	7.5	105
MZ85C11	11	20	8.0	300	0.5	50	8.2	97
MZ85C12	12	20	9.0	350	0.5	0.5	9.1	88
MZ85C13	13	20	10	400	0.5	0.5	10	79
MZ85C15	15	15	15	500	0.5	0.5	11	71
MZ85C16	16	15	15	500	0.5	0.5	12	66
MZ85C18	18	15	20	500	0.5	0.5	13	62
MZ85C19	19	15	20	550	0.5	0.5	14	58
MZ85C20	20	10	24	600	0.5	0.5	15	56
MZ85C22	22	10	25	600	0.5	0.5	16	52
MZ85C24	24	10	25	600	0.5	0.5	18	47
MZ85C27	27	8.0	30	750	0.25	0.5	20	41
MZ85C30	30	8.0	30	1000	0.25	0.5	22	36
MZ85C33	33	8.0	35	1000	0.25	0.5	24	33
MZ85C36	36	8.0	40	1000	0.25	0.5	27	30
MZ85C39	39	6.0	50	1000	0.25	0.5	30	28
MZ85C43	43	6.0	50	1000	0.25	0.5	33	26
MZ85C47	47	4.0	90	1500	0.25	0.5	36	23
MZ85C51	51	4.0	115	1500	0.25	0.5	39	21
MZ85C56	56	4.0	120	2000	0.25	0.5	43	19
MZ85C62	62	4.0	125	2000	0.25	0.5	47	16
MZ85C68	68	4.0	130	2000	0.25	0.5	51	15
MZ85C75	75	4.0	135	2000	0.25	0.5	56	14
MZ85C82	82	2.7	200	3000	0.25	0.5	62	12
MZ85C91	91	2.7	250	3000	0.25	0.5	68	10
MZ85C100	100	2.7	350	3000	0.25	0.5	75	9.4
MZ85C110	110	2.7	450	4000	0.25	0.5	82	8.6
MZ85C120	120	2.0	550	4500	0.25	0.5	91	7.8
MZ85C130	130	2.0	700	5000	0.25	0.5	100	7.0
MZ85C150	150	2.0	1000	6000	0.25	0.5	110	6.4
MZ85C160	160	1.5	1100	6500	0.25	0.5	120	5.8
MZ85C180	180	1.5	1200	7000	0.25	0.5	130	5.2
MZ85C200	200	1.5	1900	9990	0.25	0.5	150	4.7

Note :

(1) The type number listed have a standard tolerance on the nominal zener voltage± 5.0%.