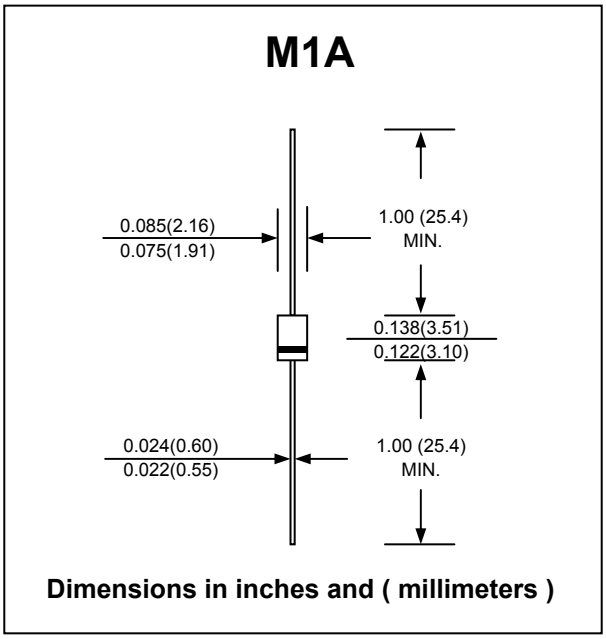
MZ55C3V0 ~ MZ55C200

SILICON ZENER DIODES

V_Z : 3.0 - 200 Volts
P_D : 500 mW



Dimensions in inches and (millimeters)

FEATURES :

* Complete 3.0 to 200 Volts
* High surge current capability
* 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)

MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Unit
Power Dissipation (Note1)	P_D	500	mW
Maximum Forward Voltage at I_F =100 mA	V_F	1.0	V
Maximum Thermal Resistance Junction to Ambient Air (Note1)	$R_{\Theta JA}$	300	°C/W
Junction Temperature Range	T_J	- 65 to + 200	°C
Storage Temperature Range	T_{STG}	- 65 to + 200	°C

Note :

(1) Valid provided that leads at a distance of 3/8” from case are kept at ambient temperature.

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

Type Number	Zener Voltage V_Z @ I_{ZT}				Maximum Zener Impedance			Max. Reverse Leakage Current		Temp. coefficient of Zener Voltage	Admissible Zener Current[2]
	Nom[1]	Min[2]	Max[2]	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{Zk} @ I_{ZK}	I_{ZK}	I_R	at V_R	TK_{VZ}	
	(V)	(V)	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(% / K)	I_{ZM} (mA)
MZ55C3V0	3.0	2.8	3.2	5.0	85	600	1.0	4.0	1.0	-0.08...-0.05	125
MZ55C3V3	3.3	3.1	3.5	5.0	85	600	1.0	2.0	1.0	-0.08...-0.05	115
MZ55C3V6	3.6	3.4	3.8	5.0	85	600	1.0	2.0	1.0	-0.08...-0.05	105
MZ55C3V9	3.9	3.7	4.1	5.0	85	600	1.0	2.0	1.0	-0.08...-0.05	95
MZ55C4V3	4.3	4.0	4.6	5.0	75	600	1.0	1.0	1.0	-0.06...-0.03	90
MZ55C4V7	4.7	4.4	5.0	5.0	60	600	1.0	1.0	1.0	-0.05...+0.02	85
MZ55C5V1	5.1	4.8	5.4	5.0	35	550	1.0	1.0	1.0	-0.02...+0.02	80
MZ55C5V6	5.6	5.2	6.0	5.0	25	450	1.0	1.0	1.0	-0.05...+0.05	70
MZ55C6V2	6.2	5.8	6.6	5.0	10	200	1.0	1.0	2.0	0.03...0.06	64
MZ55C6V8	6.8	6.4	7.2	5.0	8	150	1.0	1.0	3.0	0.03...0.07	58
MZ55C7V5	7.5	7.0	7.9	5.0	7	50	1.0	1.0	5.0	0.03...0.07	53
MZ55C8V2	8.2	7.7	8.7	5.0	7	50	1.0	1.0	6.2	0.03...0.08	47
MZ55C9V1	9.1	8.5	9.6	5.0	10	50	1.0	1.0	6.8	0.03...0.09	43
MZ55C10	10	9.4	10.6	5.0	15	70	1.0	1.0	7.5	0.03...0.10	40
MZ55C11	11	10.4	11.6	5.0	20	70	1.0	1.0	8.2	0.03...0.11	36
MZ55C12	12	11.4	12.7	5.0	20	90	1.0	1.0	9.1	0.03...0.11	32
MZ55C13	13	12.4	14.1	5.0	26	110	1.0	1.0	10.0	0.03...0.11	29
MZ55C14	14	13.1	15.0	5.0	28	110	1.0	1.0	10.5	0.03...0.11	28
MZ55C15	15	13.8	15.6	5.0	30	110	1.0	1.0	11	0.03...0.11	27
MZ55C16	16	15.3	17.1	5.0	40	170	1.0	1.0	12	0.03...0.11	24
MZ55C18	18	16.8	19.1	5.0	50	170	1.0	1.0	13	0.03...0.11	21
MZ55C20	20	18.8	21.2	5.0	55	220	1.0	1.0	15	0.03...0.11	20
MZ55C22	22	20.8	23.3	5.0	55	220	1.0	1.0	16	0.04...0.12	18
MZ55C24	24	22.8	25.6	5.0	80	220	1.0	1.0	18	0.04...0.12	16
MZ55C27	27	25.1	28.9	5.0	80	220	1.0	1.0	20	0.04...0.12	14
MZ55C30	30	28	32	5.0	80	220	1.0	1.0	22	0.04...0.12	13
MZ55C33	33	31	35	5.0	80	220	1.0	1.0	24	0.04...0.12	12
MZ55C36	36	34	38	5.0	80	220	1.0	1.0	27	0.04...0.12	11
MZ55C39	39	37	41	2.5	90	500	0.5	1.0	30	0.04...0.12	10
MZ55C43	43	40	46	2.5	90	500	0.5	1.0	33	0.04...0.12	9.2
MZ55C47	47	44	50	2.5	110	600	0.5	1.0	36	0.04...0.12	8.5
MZ55C51	51	48	54	2.5	125	700	0.5	1.0	39	0.04...0.12	7.8
MZ55C56	56	52	60	2.5	135	700	0.5	1.0	43	0.04...0.12	7.0
MZ55C62	62	58	66	2.5	150	1000	0.5	1.0	47	0.04...0.12	6.4
MZ55C68	68	64	72	2.5	200	1000	0.5	1.0	51	0.04...0.12	5.9
MZ55C75	75	70	79	2.5	250	1000	0.5	1.0	56	0.04...0.12	5.3
MZ55C82	82	77	87	2.5	300	1500	0.5	1.0	62	0.05...0.12	4.8
MZ55C91	91	85	96	1.0	450	2000	0.1	1.0	68	0.05...0.12	4.4
MZ55C100	100	94	106	1.0	450	5000	0.1	1.0	75	0.05...0.12	4.0
MZ55C110	110	104	116	1.0	600	5000	0.1	1.0	82	0.05...0.12	3.6
MZ55C120	120	114	127	1.0	800	5500	0.1	1.0	91	0.05...0.12	3.3
MZ55C130	130	124	141	1.0	950	6000	0.1	1.0	100	0.05...0.12	3.1
MZ55C150	150	138	156	1.0	1250	6500	0.1	1.0	110	0.05...0.12	3.7
MZ55C160	160	153	171	1.0	1400	7000	0.1	1.0	120	0.05...0.12	2.5
MZ55C180	180	168	191	1.0	1700	8500	0.1	1.0	130	0.05...0.12	2.2
MZ55C190	190	180	199	1.0	1850	9500	0.1	1.0	140	0.05...0.12	2.1
MZ55C200	200	188	212	1.0	2000	10000	0.1	1.0	150	0.05...0.12	2.0

Notes:

(1) Tested with pulses tp = 20 ms

(2) Valid Provided that leads are kept at ambient temperature at a distance of 8 mm from case

(3) For ± 2% tolerance altered the fifth letter of type from "C" to be "B"

(4) at Iz = 2.5 mA