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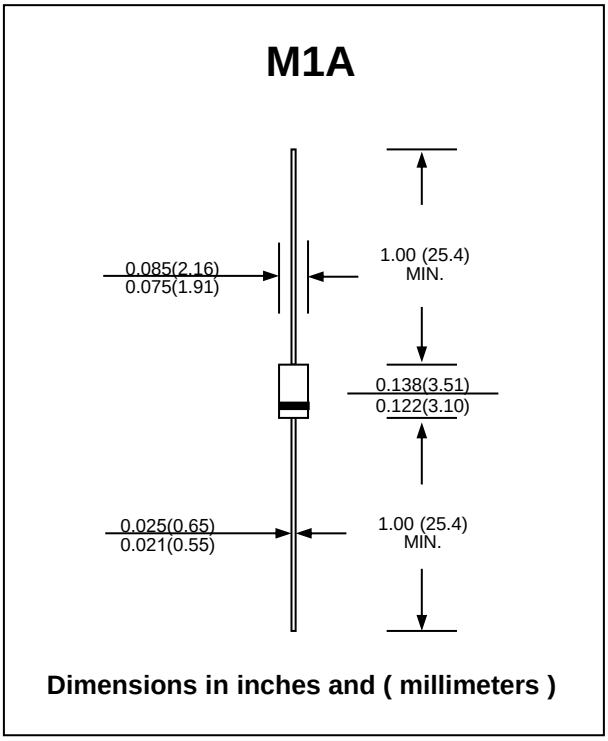
MZ55B3V0 ~ MZ55B200

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
* Zener Voltage tolerance is ± 2%
* 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] (V)	Min[2] (V)	Max[2] (V)	I_{ZT} (mA)	Z_{ZT} @ I_{ZT} (Ω)	Z_{Zk} @ I_{ZK} (Ω)	I_{ZK} (mA)	I_R (μA)	at V_R (V)	TK_{VZ} (% / K)	I_{ZM} (mA)
MZ55B3V0	3.0	2.94	3.06	5.0	85	600	1.0	4.0	1.0	-0.08...-0.05	125
MZ55B3V3	3.3	3.23	3.37	5.0	85	600	1.0	2.0	1.0	-0.08...-0.05	115
MZ55B3V6	3.6	3.53	3.67	5.0	85	600	1.0	2.0	1.0	-0.08...-0.05	105
MZ55B3V9	3.9	3.82	3.98	5.0	85	600	1.0	2.0	1.0	-0.08...-0.05	95
MZ55B4V3	4.3	4.21	4.39	5.0	75	600	1.0	1.0	1.0	-0.06...-0.03	90
MZ55B4V7	4.7	4.61	4.8	5.0	60	600	1.0	1.0	1.0	-0.05...+0.02	85
MZ55B5V1	5.1	5.00	5.2	5.0	35	550	1.0	1.0	1.0	-0.02...+0.02	80
MZ55B5V6	5.6	5.49	5.7	5.0	25	450	1.0	1.0	1.0	-0.05...+0.05	70
MZ55B6V2	6.2	6.08	6.32	5.0	10	200	1.0	1.0	2.0	0.03...0.06	64
MZ55B6V8	6.8	6.66	6.94	5.0	8	150	1.0	1.0	3.0	0.03...0.07	58
MZ55B7V5	7.5	7.35	7.65	5.0	7	50	1.0	1.0	5.0	0.03...0.07	53
MZ55B8V2	8.2	8.04	8.36	5.0	7	50	1.0	1.0	6.2	0.03...0.08	47
MZ55B9V1	9.1	8.92	9.28	5.0	10	50	1.0	1.0	6.8	0.03...0.09	43
MZ55B10	10	9.80	10.2	5.0	15	70	1.0	1.0	7.5	0.03...0.10	40
MZ55B11	11	10.8	11.2	5.0	20	70	1.0	1.0	8.2	0.03...0.11	36
MZ55B12	12	11.8	12.2	5.0	20	90	1.0	1.0	9.1	0.03...0.11	32
MZ55B13	13	12.7	13.3	5.0	26	110	1.0	1.0	10.0	0.03...0.11	29
MZ55B14	14	13.7	14.3	5.0	28	110	1.0	1.0	10.5	0.03...0.11	28
MZ55B15	15	14.7	15.3	5.0	30	110	1.0	1.0	11	0.03...0.11	27
MZ55B16	16	15.7	16.3	5.0	40	170	1.0	1.0	12	0.03...0.11	24
MZ55B18	18	17.6	18.4	5.0	50	170	1.0	1.0	13	0.03...0.11	21
MZ55B20	20	19.6	20.4	5.0	55	220	1.0	1.0	15	0.03...0.11	20
MZ55B22	22	21.6	22.4	5.0	55	220	1.0	1.0	16	0.04...0.12	18
MZ55B24	24	23.5	24.5	5.0	80	220	1.0	1.0	18	0.04...0.12	16
MZ55B27	27	26.5	27.5	5.0	80	220	1.0	1.0	20	0.04...0.12	14
MZ55B30	30	29.4	30.6	5.0	80	220	1.0	1.0	22	0.04...0.12	13
MZ55B33	33	32.3	33.7	5.0	80	220	1.0	1.0	24	0.04...0.12	12
MZ55B36	36	35.3	36.7	5.0	80	220	1.0	1.0	27	0.04...0.12	11
MZ55B39	39	38.2	39.8	2.5	90	500	0.5	1.0	30	0.04...0.12	10
MZ55B43	43	42.1	43.9	2.5	90	500	0.5	1.0	33	0.04...0.12	9.2
MZ55B47	47	46.1	47.9	2.5	110	600	0.5	1.0	36	0.04...0.12	8.5
MZ55B51	51	50.0	52	2.5	125	700	0.5	1.0	39	0.04...0.12	7.8
MZ55B56	56	54.9	57.1	2.5	135	700	0.5	1.0	43	0.04...0.12	7.0
MZ55B62	62	60.8	63.2	2.5	150	1000	0.5	1.0	47	0.04...0.12	6.4
MZ55B68	68	66.6	69.4	2.5	200	1000	0.5	1.0	51	0.04...0.12	5.9
MZ55B75	75	73.5	76.5	2.5	250	1000	0.5	1.0	56	0.04...0.12	5.3
MZ55B82	82	80.4	83.6	2.5	300	1500	0.5	1.0	62	0.05...0.12	4.8
MZ55B91	91	89.2	92.8	1.0	450	2000	0.5	1.0	68	0.05...0.12	4.4
MZ55B100	100	98.0	102.0	1.0	450	5000	0.5	1.0	75	0.05...0.12	4.0
MZ55B110	110	107.8	112.2	1.0	600	5000	0.5	1.0	82	0.05...0.12	3.6
MZ55B120	120	117.6	122.4	1.0	800	5500	0.5	1.0	91	0.05...0.12	3.3
MZ55B130	130	127.4	132.6	1.0	950	6000	0.5	1.0	100	0.05...0.12	3.1
MZ55B150	150	147.0	153.0	1.0	1250	6500	0.5	1.0	110	0.05...0.12	3.7
MZ55B160	160	156.8	163.2	1.0	1400	7000	0.5	1.0	120	0.05...0.12	2.5
MZ55B180	180	176.4	183.6	1.0	1700	8500	0.5	1.0	130	0.05...0.12	2.2
MZ55B190	190	186.2	193.8	1.0	1850	9500	0.5	1.0	140	0.05...0.12	2.1
MZ55B200	200	196.0	204.0	1.0	2000	10000	0.5	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 ± 5% tolerance altered the fifth letter of type from "B" to be "C"

(4) at Iz = 2.5 mA