

# MZ5913A - MZ5956A

# SILICON ZENER DIODES

**V<sub>Z</sub> : 3.3 - 200 Volts**

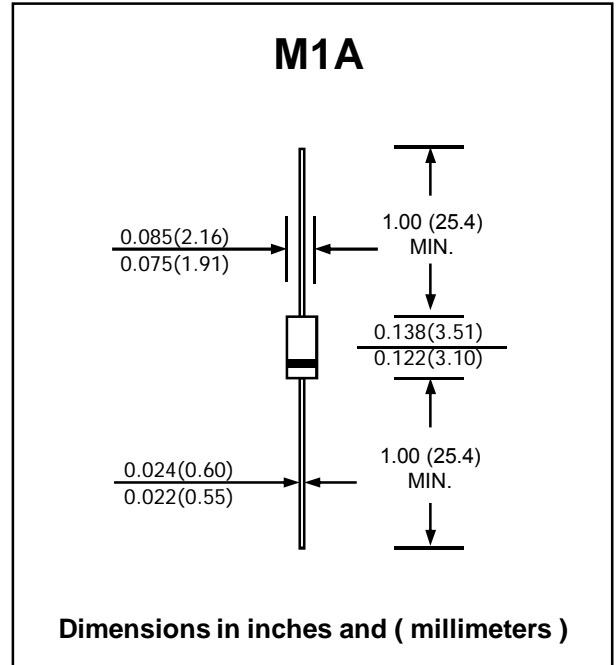
**P<sub>D</sub> : 1.5 Watts**

**FEATURES :**

- \* Complete Voltage Range 3.3 to 200 Volts
- \* High peak reverse power dissipation
- \* High reliability
- \* Low leakage current
- \* **Pb / RoHS Free**

**MECHANICAL DATA :**

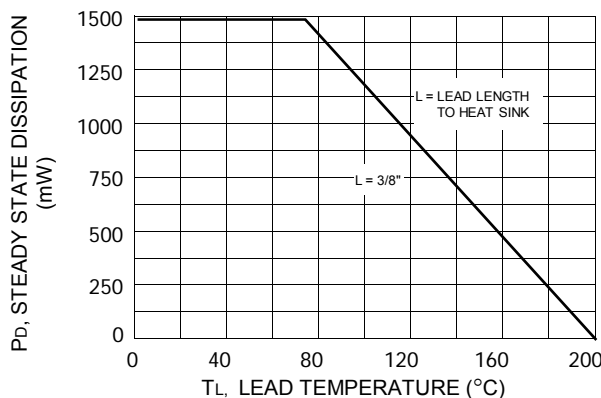
- \* Case : M1A Molded plastic
- \* Epoxy : UL94V-0 rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.20 gram (approximately)



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

Rating	Symbol	Value	Unit
Maximum Steady state Power Dissipation @ T <sub>L</sub> = 75 °C, Lead Length = 3/8" Derate above 75 °C	P <sub>D</sub>	1.5	W
Maximum Forward Voltage at I <sub>F</sub> = 0.2 A	V <sub>F</sub>	1.5	V
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	- 65 to + 200	°C

**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)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu$ A)	(V)	(mA)
MZ5913A	3.3	113.6	10	500	1.0	100	1.0	454
MZ5914A	3.6	104.2	9.0	500	1.0	75	1.0	416
MZ5915A	3.9	96.1	7.5	500	1.0	25	1.0	384
MZ5916A	4.3	87.2	6.0	500	1.0	5.0	1.0	348
MZ5917A	4.7	79.8	5.0	500	1.0	5.0	1.5	319
MZ5918A	5.1	73.5	4.0	400	1.0	5.0	2.0	294
MZ5919A	5.6	66.9	2.0	300	1.0	5.0	3.0	267
MZ5920A	6.2	60.5	2.0	200	1.0	5.0	4.0	241
MZ5921A	6.8	55.1	2.5	200	1.0	5.0	5.2	220
MZ5922A	7.5	50.0	3.0	400	0.5	5.0	6.0	200
MZ5923A	8.2	45.7	3.5	400	0.5	5.0	6.5	182
MZ5924A	9.1	41.2	4.0	500	0.5	5.0	7.0	164
MZ5925A	10	37.5	4.5	500	0.25	5.0	8.0	150
MZ5926A	11	34.1	5.5	550	0.25	1.0	8.4	136
MZ5927A	12	31.2	6.5	550	0.25	1.0	9.1	125
MZ5928A	13	28.8	7.0	550	0.25	1.0	9.9	115
MZ5929A	15	25.0	9.0	600	0.25	1.0	11.4	100
MZ5930A	16	23.4	10	600	0.25	1.0	12.2	93
MZ5931A	18	20.8	12	650	0.25	1.0	13.7	83
MZ5932A	20	18.7	14	650	0.25	1.0	15.2	75
MZ5933A	22	17.0	17.5	650	0.25	1.0	16.7	68
MZ5934A	24	15.6	19	700	0.25	1.0	18.2	62
MZ5935A	27	13.9	23	700	0.25	1.0	20.6	55
MZ5936A	30	12.5	26	750	0.25	1.0	22.8	50
MZ5937A	33	11.4	33	800	0.25	1.0	25.1	45
MZ5938A	36	10.4	38	850	0.25	1.0	27.4	41
MZ5939A	39	9.6	45	900	0.25	1.0	29.7	38
MZ5940A	43	8.7	53	950	0.25	1.0	32.7	34
MZ5941A	47	8.0	67	1000	0.25	1.0	35.8	31
MZ5942A	51	7.3	70	1100	0.25	1.0	38.8	29
MZ5943A	56	6.7	86	1300	0.25	1.0	42.6	26
MZ5944A	62	6.0	100	1500	0.25	1.0	47.1	24
MZ5945A	68	5.5	120	1700	0.25	1.0	51.7	22
MZ5946A	75	5.0	140	2000	0.25	1.0	56.0	20
MZ5947A	82	4.6	160	2500	0.25	1.0	62.2	18
MZ5948A	91	4.1	200	3000	0.25	1.0	69.2	16
MZ5949A	100	3.7	250	3100	0.25	1.0	76.0	15
MZ5950A	110	3.4	300	4000	0.25	1.0	83.6	13
MZ5951A	120	3.1	380	4500	0.25	1.0	91.2	12
MZ5952A	130	2.9	450	5000	0.25	1.0	98.8	11
MZ5953A	150	2.5	600	6000	0.25	1.0	114.0	10
MZ5954A	160	2.3	700	6500	0.25	1.0	121.6	9.0
MZ5955A	180	2.1	900	7000	0.25	1.0	136.8	8.0
MZ5956A	200	1.9	1900	9990	0.25	1.0	152.0	7.0

Note : (1) Suffix " A " indicates  $\pm 10\%$  tolerance, suffix " B " indicates  $\pm \%$  tolerance.