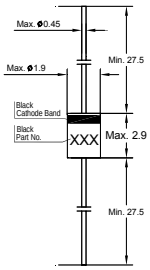
MTZ Series

Silicon Epitaxial Planar Zener Diodes

Constant voltage control applications



Glass Case DO-34
Dimensions in mm

Features

- Glass sealed envelope
- High reliability

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_{stg}	- 65 to + 175	°C

Characteristics at T_a = 25 °C (V_F = 1 V Max. at I_F = 100 mA)

Type	Zener Voltage [1]			Operating Resistance		Rising Operating Resistance		Reverse Current	
	V_Z		at I_{ZT}	Z_{ZT}	at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R
	Min. (V)	Max. (V)	(mA)	Max. (Ω)	(mA)	Max. (Ω)	(mA)	Max. (µA)	(V)
MTZ2V0	1.88	2.2	20	100	20	1000	0.5	120	0.5
MTZ2V0A	1.88	2.1	20	100	20	1000	0.5	120	0.5
MTZ2V0B	2.02	2.2	20	100	20	1000	0.5	120	0.5
MTZ2V2	2.09	2.41	20	100	20	1000	0.5	120	0.7
MTZ2V2A	2.12	2.3	20	100	20	1000	0.5	120	0.7
MTZ2V2B	2.22	2.41	20	100	20	1000	0.5	120	0.7
MTZ2V4	2.3	2.64	20	100	20	1000	0.5	120	1
MTZ2V4A	2.33	2.52	20	100	20	1000	0.5	120	1
MTZ2V4B	2.43	2.63	20	100	20	1000	0.5	120	1
MTZ2V7	2.5	2.9	20	110	20	1000	0.5	100	1
MTZ2V7A	2.54	2.75	20	110	20	1000	0.5	100	1
MTZ2V7B	2.69	2.91	20	110	20	1000	0.5	100	1
MTZ3V0	2.8	3.2	20	120	20	1000	0.5	50	1
MTZ3V0A	2.85	3.07	20	120	20	1000	0.5	50	1
MTZ3V0B	3.01	3.22	20	120	20	1000	0.5	50	1
MTZ3V3	3.1	3.5	20	120	20	1000	0.5	20	1
MTZ3V3A	3.16	3.38	20	120	20	1000	0.5	20	1
MTZ3V3B	3.32	3.53	20	120	20	1000	0.5	20	1
MTZ3V6	3.4	3.8	20	100	20	1000	1	10	1
MTZ3V6A	3.455	3.695	20	100	20	1000	1	10	1
MTZ3V6B	3.6	3.845	20	100	20	1000	1	10	1
MTZ3V9	3.7	4.1	20	100	20	1000	1	5	1
MTZ3V9A	3.74	4.01	20	100	20	1000	1	5	1
MTZ3V9B	3.89	4.16	20	100	20	1000	1	5	1
MTZ4V3	4	4.5	20	100	20	1000	1	5	1
MTZ4V3A	4.04	4.29	20	100	20	1000	1	5	1
MTZ4V3B	4.17	4.43	20	100	20	1000	1	5	1
MTZ4V3C	4.3	4.57	20	100	20	1000	1	5	1
MTZ4V7	4.4	4.9	20	80	20	900	0.5	5	1
MTZ4V7A	4.44	4.68	20	80	20	900	0.5	5	1
MTZ4V7B	4.55	4.8	20	80	20	900	0.5	5	1
MTZ4V7C	4.68	4.93	20	80	20	900	0.5	5	1
MTZ5V1	4.8	5.4	20	70	20	1200	0.5	5	1.5

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Characteristics at T_a = 25 °C (V_F = 1 V Max. at I_F = 100 mA)

Type	Zener Voltage [1]			Operating Resistance		Rising Operating Resistance		Reverse Current	
	V_Z		at I_{ZT}	Z_{ZT}	at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R
	Min. (V)	Max. (V)	(mA)	Max. (Ω)	(mA)	Max. (Ω)	(mA)	Max. (μA)	(V)
MTZ5V1A	4.81	5.07	20	70	20	1200	0.5	5	1.5
MTZ5V1B	4.94	5.2	20	70	20	1200	0.5	5	1.5
MTZ5V1C	5.09	5.37	20	70	20	1200	0.5	5	1.5
MTZ5V6	5.3	6	20	40	20	900	0.5	5	2.5
MTZ5V6A	5.28	5.55	20	40	20	900	0.5	5	2.5
MTZ5V6B	5.45	5.73	20	40	20	900	0.5	5	2.5
MTZ5V6C	5.61	5.91	20	40	20	900	0.5	5	2.5
MTZ6V2	5.8	6.6	20	30	20	500	0.5	5	3
MTZ6V2A	5.78	6.09	20	30	20	500	0.5	5	3
MTZ6V2B	5.96	6.27	20	30	20	500	0.5	5	3
MTZ6V2C	6.12	6.44	20	30	20	500	0.5	5	3
MTZ6V8	6.4	7.2	20	20	20	150	0.5	2	3.5
MTZ6V8A	6.29	6.63	20	20	20	150	0.5	2	3.5
MTZ6V8B	6.49	6.83	20	20	20	150	0.5	2	3.5
MTZ6V8C	6.66	7.01	20	20	20	150	0.5	2	3.5
MTZ7V5	7	7.9	20	20	20	120	0.5	0.5	4
MTZ7V5A	6.85	7.22	20	20	20	120	0.5	0.5	4
MTZ7V5B	7.07	7.45	20	20	20	120	0.5	0.5	4
MTZ7V5C	7.29	7.67	20	20	20	120	0.5	0.5	4
MTZ8V2	7.7	8.7	20	20	20	120	0.5	0.5	5
MTZ8V2A	7.53	7.92	20	20	20	120	0.5	0.5	5
MTZ8V2B	7.78	8.19	20	20	20	120	0.5	0.5	5
MTZ8V2C	8.03	8.45	20	20	20	120	0.5	0.5	5
MTZ9V1	8.5	9.6	20	20	20	120	0.5	0.5	6
MTZ9V1A	8.29	8.73	20	20	20	120	0.5	0.5	6
MTZ9V1B	8.57	9.01	20	20	20	120	0.5	0.5	6
MTZ9V1C	8.83	9.3	20	20	20	120	0.5	0.5	6
MTZ10	9.4	10.6	20	20	20	120	0.5	0.2	7
MTZ10A	9.12	9.59	20	20	20	120	0.5	0.2	7
MTZ10B	9.41	9.9	20	20	20	120	0.5	0.2	7
MTZ10C	9.7	10.2	20	20	20	120	0.5	0.2	7
MTZ10D	9.94	10.44	20	20	20	120	0.5	0.2	7
MTZ11	10.4	11.6	10	20	10	120	0.5	0.2	8
MTZ11A	10.18	10.71	10	20	10	120	0.5	0.2	8
MTZ11B	10.5	11.05	10	20	10	120	0.5	0.2	8
MTZ11C	10.82	11.38	10	20	10	120	0.5	0.2	8
MTZ12	11.4	12.6	10	25	10	110	0.5	0.2	9
MTZ12A	11.13	11.71	10	25	10	110	0.5	0.2	9
MTZ12B	11.44	12.03	10	25	10	110	0.5	0.2	9
MTZ12C	11.74	12.35	10	25	10	110	0.5	0.2	9
MTZ13	12.4	14.1	10	25	10	110	0.5	0.2	10
MTZ13A	12.11	12.75	10	25	10	110	0.5	0.2	10
MTZ13B	12.55	13.21	10	25	10	110	0.5	0.2	10
MTZ13C	12.99	13.66	10	25	10	110	0.5	0.2	10
MTZ15	13.8	15.6	10	25	10	110	0.5	0.2	11
MTZ15A	13.44	14.13	10	25	10	110	0.5	0.2	11
MTZ15B	13.89	14.62	10	25	10	110	0.5	0.2	11
MTZ15C	14.35	15.09	10	25	10	110	0.5	0.2	11
MTZ16	15.3	17.1	10	25	10	150	0.5	0.2	12
MTZ16A	14.8	15.57	10	25	10	150	0.5	0.2	12

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Characteristics at T_a = 25 °C (V_F = 1 V Max. at I_F = 100 mA)

Type	Zener Voltage [1]			Operating Resistance		Rising Operating Resistance		Reverse Current	
	V_Z		at I_{ZT}	Z_{ZT}	at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R
	Min. (V)	Max. (V)	(mA)	Max. (Ω)	(mA)	Max. (Ω)	(mA)	Max. (µA)	(V)
MTZ16B	15.25	16.04	10	25	10	150	0.5	0.2	12
MTZ16C	15.69	16.51	10	25	10	150	0.5	0.2	12
MTZ18	16.8	19.1	10	30	10	150	0.5	0.2	13
MTZ18A	16.22	17.06	10	30	10	150	0.5	0.2	13
MTZ18B	16.82	17.7	10	30	10	150	0.5	0.2	13
MTZ18C	17.42	18.33	10	30	10	150	0.5	0.2	13
MTZ20	18.8	21.2	10	30	10	200	0.5	0.2	15
MTZ20A	18.02	18.96	10	30	10	200	0.5	0.2	15
MTZ20B	18.63	19.59	10	30	10	200	0.5	0.2	15
MTZ20C	19.23	20.22	10	30	10	200	0.5	0.2	15
MTZ20D	19.72	20.72	10	30	10	200	0.5	0.2	15
MTZ22	20.8	23.3	10	30	10	200	0.5	0.2	17
MTZ22A	20.15	21.2	10	30	10	200	0.5	0.2	17
MTZ22B	20.64	21.71	10	30	10	200	0.5	0.2	17
MTZ22C	21.08	22.17	10	30	10	200	0.5	0.2	17
MTZ22D	21.52	22.63	10	30	10	200	0.5	0.2	17
MTZ24	22.56	25.44	10	35	10	200	0.5	0.2	19
MTZ24A	22.05	23.18	10	35	10	200	0.5	0.2	19
MTZ24B	22.61	23.77	10	35	10	200	0.5	0.2	19
MTZ24C	23.12	24.31	10	35	10	200	0.5	0.2	19
MTZ24D	23.63	24.85	10	35	10	200	0.5	0.2	19
MTZ27	25.38	28.62	10	45	10	250	0.5	0.2	21
MTZ27A	24.26	25.52	10	45	10	250	0.5	0.2	21
MTZ27B	24.97	26.26	10	45	10	250	0.5	0.2	21
MTZ27C	25.63	26.95	10	45	10	250	0.5	0.2	21
MTZ27D	26.29	27.64	10	45	10	250	0.5	0.2	21
MTZ30	28.2	31.8	10	55	10	250	0.5	0.2	23
MTZ30A	26.99	28.39	10	55	10	250	0.5	0.2	23
MTZ30B	27.7	29.13	10	55	10	250	0.5	0.2	23
MTZ30C	28.36	29.82	10	55	10	250	0.5	0.2	23
MTZ30D	29.02	30.51	10	55	10	250	0.5	0.2	23
MTZ33	31.02	34.98	10	65	10	250	0.5	0.2	25
MTZ33A	29.68	31.22	10	65	10	250	0.5	0.2	25
MTZ33B	30.32	31.88	10	65	10	250	0.5	0.2	25
MTZ33C	30.9	32.5	10	65	10	250	0.5	0.2	25
MTZ33D	31.49	33.11	10	65	10	250	0.5	0.2	25
MTZ36	33.84	38.16	10	75	10	250	0.5	0.2	27
MTZ36A	32.14	33.79	10	75	10	250	0.5	0.2	27
MTZ36B	32.79	34.49	10	75	10	250	0.5	0.2	27
MTZ36C	33.4	35.13	10	75	10	250	0.5	0.2	27
MTZ36D	34.01	35.77	10	75	10	250	0.5	0.2	27
MTZ39	36.66	41.34	10	85	10	250	0.5	0.2	30
MTZ39A	34.68	36.47	10	85	10	250	0.5	0.2	30
MTZ39B	35.36	37.19	10	85	10	250	0.5	0.2	30
MTZ39C	36	37.85	10	85	10	250	0.5	0.2	30
MTZ39D	36.63	38.52	10	85	10	250	0.5	0.2	30
MTZ39E	37.36	39.29	10	85	10	250	0.5	0.2	30
MTZ39F	38.14	40.11	10	85	10	250	0.5	0.2	30
MTZ39G	38.94	40.8	10	85	10	250	0.5	0.2	30

[1] Tested with pulses tp = 20 ms.