



SANTA ANA, CA

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**3-WATT  
GLASS ZENER DIODES**

**FEATURES**

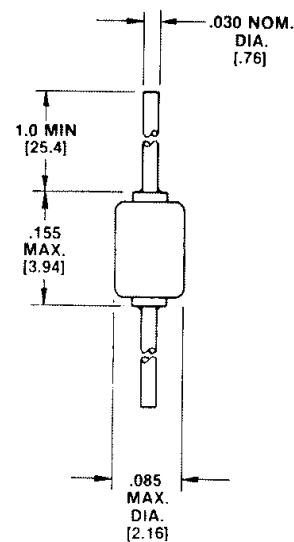
- Microminiature package.
- Voidless hermetically sealed glass package.
- Triple layer passivation.
- Metallurgically bonded.
- High performance characteristics.
- Stable operation at temperatures to 200°C.
- Very low thermal impedance.

**MAXIMUM RATINGS**

Operating Temperature: -65°C to +175°C.  
Storage Temperature: -65°C to +200°C.

**ELECTRICAL CHARACTERISTICS**

TYPE (Note 1)	ELECTRICAL SPECIFICATIONS AT 25°C								MAXIMUM RATINGS	
	NOMINAL ZENER VOLTAGE $V_Z$ (at $I_ZT$ )	TEST CURRENT $I_ZT$	MAXIMUM REVERSE LEAKAGE CURRENT				MAX. ZENER IMPEDANCE $Z_Z$ @ $I_ZT$	TYP. TEMP. COEFFICIENT $T_C$ @ $I_ZT$	MAXIMUM CONTINUOUS CURRENT $I_ZM$	MAXIMUM SURGE CURRENT $I_ZS$
			$I_R$ @ $V_R$	$\pm 5\%$ $V_R$	$\pm 10\%$ $V_R$					
Jedec Registration	$\pm 10\%$ Tolerance	Volts	mA	$\mu A$	Volts	Volts	Ohms	%/°C	mA	Amps
1N5063	MZ806	6.8	75	500	5.2	4.9	2	.04	440	10.0
1N5064	MZ807	7.5	75	300	5.7	5.4	2	.04	400	8.0
1N5065	MZ808	8.2	75	200	6.2	5.9	3	.05	360	7.0
1N5066	MZ809	9.1	75	100	6.9	6.6	3	.05	330	6.0
1N5067	MZ810	10.0	75	40	7.6	7.2	4	.06	300	5.0
1N4883	MZ812	12	65	10	9.1	8.6	5	.07	250	4.0
1N5069	MZ813	13	50	10	9.9	9.3	6	.07	230	4.0
1N5070	MZ814	14	50	10	10.6	10.1	6	.07	210	4.0
1N5071	MZ815	15	50	10	11.4	10.8	6	.07	200	3.0
1N5072	MZ816	16	50	5	12.2	11.5	7	.07	185	3.0
1N5073	MZ818	18	40	5	13.7	12.9	8	.08	170	2.0
1N4884	MZ820	20	40	5	15.2	14.4	9	.08	150	2.0
1N5074	MZ822	22	30	5	16.7	15.8	10	.08	135	2.0
1N5075	MZ824	24	30	5	18.2	17.3	10	.08	125	1.5
1N5076	MZ827	27	25	1	20.6	19.4	12	.09	110	1.5
1N5077	MZ830	30	25	1	22.8	21.6	15	.090	100	1.5
1N5078	MZ833	33	20	1	25.1	23.7	21	.090	90	1.2
1N5079	MZ836	36	20	1	27.4	25.9	21	.090	85	1.0
1N5081	MZ840	40	20	1	30.4	28.8	27	.095	75	1.0
1N5083	MZ845	45	15	1	34.2	32.4	37	.095	65	0.8
1N5085	MZ850	50	15	1	38.0	36.0	50	.095	60	0.8
1N5087	MZ856	56	10	1	42.6	40.3	70	.095	55	0.7
1N5088	MZ860	60	10	1	45.7	43.2	70	.095	50	0.6
1N5091	MZ870	70	10	1	53.3	50.5	90	.095	45	0.6
1N5092	MZ875	75	10	1	56.0	54.0	100	.095	40	0.5
1N5093	MZ880	80	10	1	60.8	57.7	115	.095	35	0.4
1N4096	MZ890	90	8.0	1	68.5	64.8	150	.095	30	0.4
1N4097	MZ210	100	5.0	1	76.0	72.0	175	.100	30	0.4
1N5096	MZ211	110	5.0	1	83.6	79.2	250	.100	25	0.3
1N5097	MZ212	120	5.0	1	91.2	86.4	325	.100	25	0.2
1N5098	MZ213	130	5.0	1	98.8	93.6	375	.100	20	0.20
1N5099	MZ214	140	5.0	1	106	101	550	.100	20	0.20
1N4098	MZ215	150	5.0	1	114	108	650	.100	20	0.20
1N5100	MZ216	160	4.0	1	122	115	700	.100	20	0.15
1N5101	MZ217	170	4.0	1	129	122	750	.100	18	0.15
1N5102	MZ218	180	4.0	1	137	129	850	.100	18	0.10
1N5103	MZ219	190	4.0	1	144	137	900	.100	15	0.10
1N5104	MZ220	200	4.0	1	152	144	950	.100	15	0.10
1N5105	MZ222	220	3.0	1	167	158	1100	.100	15	0.09
1N5106	MZ224	240	3.0	1	182	173	1300	.105	12	0.09
1N5107	MZ226	260	3.0	1	198	187	1500	.105	12	0.08
1N5109	MZ228	280	3.0	1	213	202	1700	.105	10	0.08
1N5110	MZ230	300	3.0	1	228	216	1900	.105	10	0.07
1N5111	MZ232	320	2.0	1	243	230	2100	.105	9	0.07
1N5113	MZ234	340	2.0	1	258	245	2400	.110	9	0.06
1N5114	MZ236	360	2.0	1	274	259	2700	.110	8	0.06
1N5115	MZ238	380	2.0	1	289	274	3000	.110	8	0.06
1N5117	MZ240	400	2.0	1	304	288	3500	.110	7	0.06



**FIGURE 1  
PACKAGE A**

**MECHANICAL CHARACTERISTICS**

CASE: Hermetically sealed glass case.

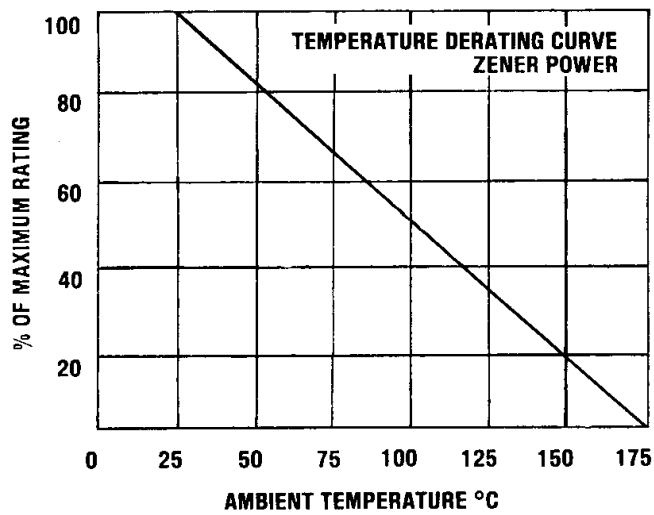
LEAD MATERIAL: Tinned copper.

MARKING: Body painted, alpha numeric with JEDEC number.

POLARITY: Cathode band.

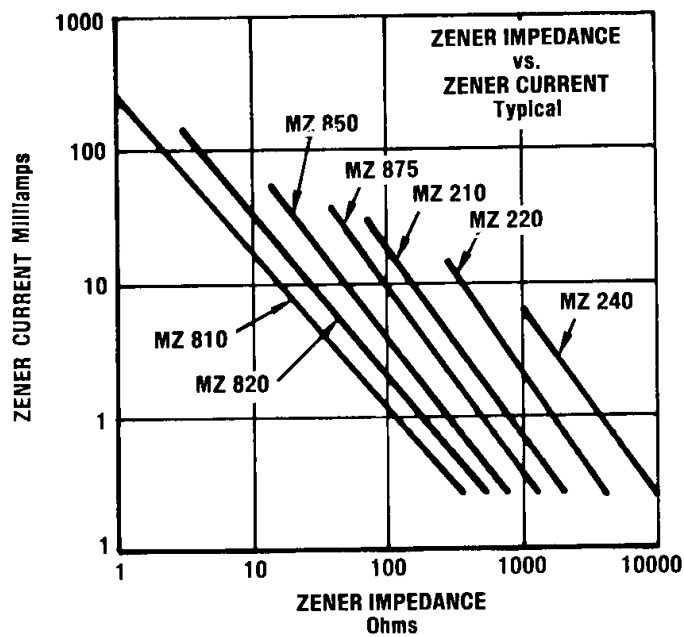
**NOTE 1:** JEDEC registration applies to  $\pm 5\%$  tolerance zeners only. Specify 5% voltage tolerance by changing first numeral of type number from 8 to 7. (MZ806 becomes 706) or from 2 to 1 (MZ211 becomes MZ111).

# 1N5063 - 1N5117, MZ806 - MZ890, MZ 210 - MZ 240



**FIGURE 2**

EXPLANATION OF ZENER CHARACTERISTICS



**FIGURE 3**