

# DIGITRON SEMICONDUCTORS

1N4096-1N5117

MZ806-MZ890

MZ210-MZ240

3 WATT ZENER DIODES

## MAXIMUM RATINGS

Operating Temperature	-65 to 175°C
Storage Temperature	-65 to 200°C

## ELECTRICAL CHARACTERISTICS

Type (note 1)		Electrical Specifications @ 25°C						Maximum Ratings		
		Nominal Zener Voltage	Test Current	Maximum Reverse Leakage Current			Maximum Zener Impedance	Typ. Temp. Coefficient	Maximum Continuous Current	Maximum Surge Current
		V <sub>Z</sub> @ I <sub>ZT</sub>	I <sub>ZT</sub>	I <sub>R</sub> @ V <sub>R</sub>	± 5% V <sub>R</sub>	± 10% V <sub>R</sub>	Z <sub>Z</sub> @ I <sub>ZT</sub>	T <sub>C</sub> @ I <sub>ZT</sub>	I <sub>ZM</sub>	I <sub>S</sub>
±5% Tolerance	±10% Tolerance	Volts	mA	µA	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	8.00
1N5065	MZ808	8.2	75	200	6.2	5.9	3	.05	360	7.00
1N5066	MZ809	9.1	75	100	6.9	6.6	3	.05	330	6.00
1N5067	MZ810	10.0	75	40	7.6	7.2	4	.06	300	5.00
1N4883	MZ812	12	65	10	9.1	8.6	5	.07	250	4.00
1N5069	MZ813	13	50	10	9.9	9.3	6	.07	230	4.00
1N5070	MZ814	14	50	10	10.6	10.1	6	.07	210	4.00
1N5071	MZ815	15	50	10	11.4	10.8	6	.07	200	3.00
1N5072	MZ816	16	50	5	12.2	11.5	7	.07	185	3.00
1N5073	MZ818	18	40	5	13.7	12.9	8	.08	170	2.00
1N4884	MZ820	20	40	5	15.2	14.4	9	.08	150	2.00
1N5074	MZ822	22	30	5	16.7	15.8	10	.08	135	2.00
1N5075	MZ824	24	30	5	18.2	17.3	10	.08	125	1.50
1N5076	MZ827	27	25	1	20.6	19.4	12	.09	110	1.50
1N5077	MZ830	30	25	1	22.8	21.6	15	.090	100	1.50
1N5078	MZ833	33	20	1	25.1	23.7	21	.090	90	1.20
1N5079	MZ836	36	20	1	27.4	25.9	21	.090	85	1.00
1N5081	MZ840	40	20	1	30.4	28.8	27	.095	75	1.00
1N5083	MZ845	45	15	1	34.2	32.4	37	.095	65	0.80
1N5085	MZ850	50	15	1	38.0	36.0	50	.095	60	0.80
1N5087	MZ856	56	10	1	42.6	40.3	70	.095	55	0.70
1N5088	MZ860	60	10	1	45.7	43.2	70	.095	50	0.60
1N5091	MZ870	70	10	1	53.3	50.5	90	.095	45	0.60
1N5092	MZ875	75	10	1	56.0	54.0	100	.095	40	0.50
1N5093	MZ880	80	10	1	60.8	57.7	115	.095	35	0.40
1N4096	MZ890	90	8.0	1	68.5	64.8	150	.095	30	0.40
1N4097	MZ210	100	5.0	1	76.0	72.0	175	.100	30	0.40
1N5096	MZ211	110	5.0	1	83.6	79.2	250	.100	25	0.30
1N5097	MZ212	120	5.0	1	91.2	86.4	325	.100	25	0.20
1N5098	MZ213	130	5.0	1	98.8	93.6	375	.100	20	0.20

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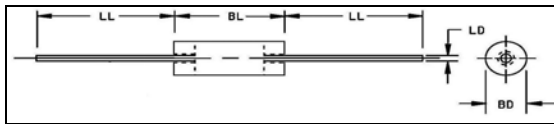
## ELECTRICAL CHARACTERISTICS

Type (note 1)		Electrical Specifications @ 25°C						Maximum Ratings		
		Nominal Zener Voltage	Test Current	Maximum Reverse Leakage Current			Maximum Zener Impedance	Typ. Temp. Coefficient	Maximum Continuous Current	Maximum Surge Current
		$V_Z @ I_{ZT}$	$I_{ZT}$	$I_R @ V_R$	$\pm 5\% V_R$	$\pm 10\% V_R$	$Z_Z @ I_{ZT}$	$T_C @ I_{ZT}$	$I_{ZM}$	$I_S$
$\pm 5\%$ Tolerance	$\pm 10\%$ Tolerance	Volts	mA	$\mu A$	Volts	Volts	Ohms	%/°C	mA	Amps
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

Note 1: Specify 5% voltage tolerance by changing the first numeral of type number from 8 to 7 or from 2 to 1.

## MECHANICAL CHARACTERISTICS

<b>Case:</b>	Plastic DO-41
<b>Marking:</b>	Body painted, alpha-numeric
<b>Polarity:</b>	Cathode band



	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
<b>BD</b>	-	0.107	-	2.720
<b>BL</b>	-	0.205	-	5.207
<b>LD</b>	0.030	0.034	0.760	0.860
<b>LL</b>	1.000	-	25.400	-

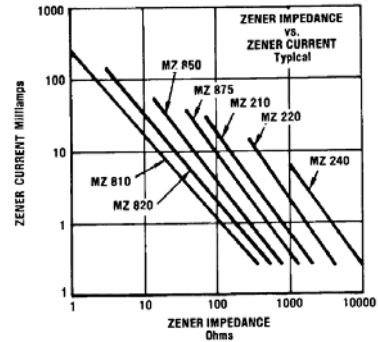
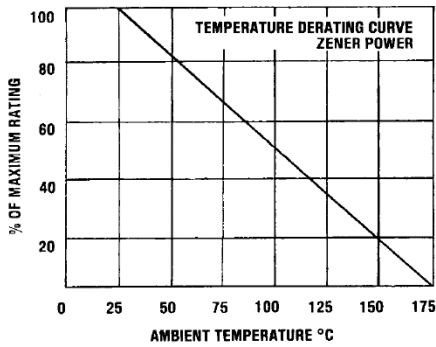
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Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).

Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.