

# DIGITRON SEMICONDUCTORS

UZ5706, UZ5806 SERIES

POWER ZENERS

5 WATT

## MAXIMUM RATINGS

Zener Voltage ( $V_Z$ ):	6.8 to 400V
Continuous Current:	See Table
Surge Current ( 8.3 ms):	See Table
Surge Power:	See Graph
Power:	See Lead Temperature Derating Curve
Storage and Operating Temperature:	-65°C to +175°C

## ELECTRICAL CHARACTERISTICS

Type*		Electrical Specifications at 25°C							Maximum Ratings	
		Nominal Zener Voltage † $V_Z @ I_{ZT}$	Test Current $I_{ZT}$	Max. Zener Impedance § $Z_Z @ I_{ZT}$	Maximum Reverse Leakage Current			Typ. Temp. Coeff. $T_c @ I_{ZT}$	Maximum Continuous Current ★ $I_{ZM}$	Maximum Surge Current ‡ $I_S$
					$I_R$	±5% $V_R$	±10% $V_R$			
±5% Tolerance	±10% Tolerance	Volts	mA	Ohms	µA	Volts	Volts	%/°C	mA	Amps
UZ5706	UZ5806	6.8	175	1.0	500	5.2	4.9	.05	675	40
UZ5707	UZ5807	7.5	175	1.5	400	5.7	5.4	.06	620	32
UZ5708	UZ5808	8.2	150	1.5	200	6.2	5.9	.06	570	24
UZ5709	UZ5809	9.1	150	2.0	100	6.9	6.6	.06	510	22
UZ5710	UZ5810	10.0	125	2.0	75	7.6	7.2	.07	470	20
UZ5712	UZ5812	12	100	2.5	50	9.1	8.6	.07	385	18
UZ5713	UZ5813	13	100	3.0	25	9.9	9.3	.08	350	16
UZ5714	UZ5814	14	100	3.0	20	10.6	10.1	.08	320	14
UZ5715	UZ5815	15	75	3.5	15	11.4	10.8	.08	300	12
UZ5716	UZ5816	16	75	3.5	10	12.2	11.5	.08	275	10
UZ5718	UZ5818	18	65	4.0	10	13.7	12.9	.085	255	9.0
UZ5720	UZ5820	20	65	4.5	10	15.2	14.4	.085	220	8.0
UZ5722	UZ5822	22	50	5.0	10	16.7	15.8	.085	195	7.0
UZ5724	UZ5824	24	50	5.0	10	18.2	17.3	.090	180	6.5
UZ5727	UZ5827	27	50	6.0	10	20.6	19.4	.090	155	6.0
UZ5730	UZ5830	30	40	8	10	22.8	21.6	.090	140	5.5
UZ5733	UZ5833	33	40	10	5	25.1	23.7	.090	130	5.0
UZ5736	UZ5836	36	30	11	5	27.4	25.9	.095	120	4.5
UZ5740	UZ5840	40	30	14	5	30.4	28.8	.095	105	4.0
UZ5745	UZ5845	45	30	20	5	34.2	32.4	.095	95	3.5
UZ5750	UZ5850	50	25	25	5	38.0	36.0	.095	85	3.0
UZ5756	UZ5856	56	20	35	5	42.6	40.3	.095	80	2.8
UZ5760	UZ5860	60	20	40	5	45.7	43.2	.100	75	2.5
UZ5770	UZ5870	70	20	50	5	53.3	50.5	.100	65	2.3
UZ5775	UZ5875	75	15	55	5	56.0	54.0	.100	60	2.0
UZ5780	UZ5880	80	15	80	5	60.8	57.7	.100	55	1.8
UZ5790	UZ5890	90	15	90	5	68.5	64.8	.100	50	1.6
UZ5110	UZ5210	100	10	100	5	76.0	72.0	.100	45	1.4
UZ5111	UZ5211	110	10	125	5	83.6	79.2	.100	40	1.2
UZ5112	UZ5212	120	10	170	5	91.2	86.4	.100	38	1.0

# DIGITRON SEMICONDUCTORS

## UZ5706, UZ5806 SERIES POWER ZENERS

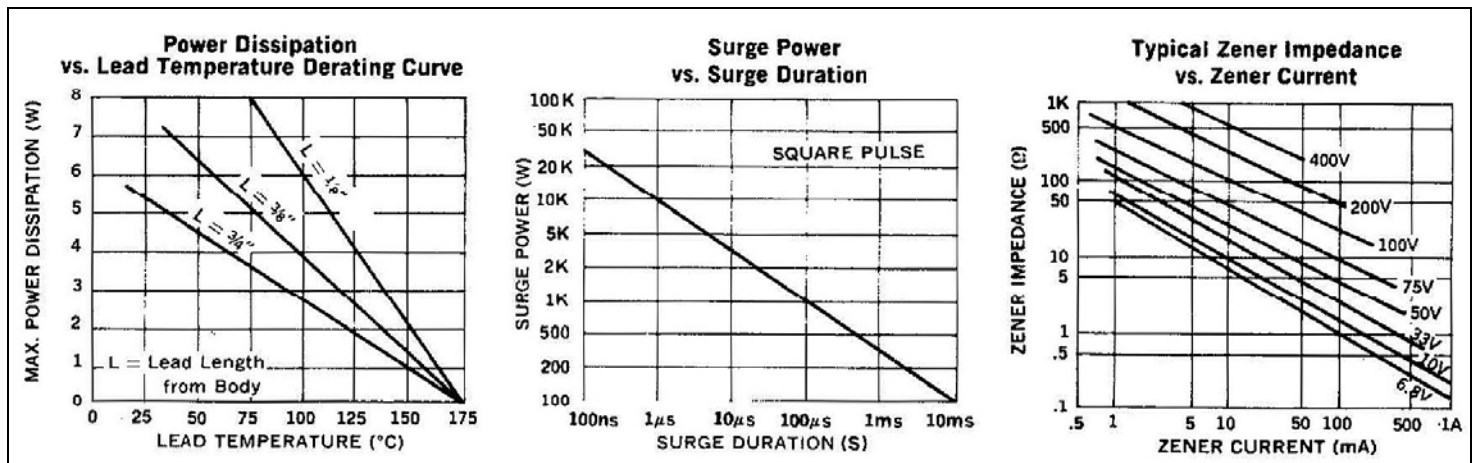
5 WATT

Type*		Electrical Specifications at 25°C							Maximum Ratings	
		Nominal Zener Voltage † V <sub>Z</sub> @ I <sub>ZT</sub>	Test Current I <sub>ZT</sub>	Max. Zener Impedance § Z <sub>Z</sub> @ I <sub>ZT</sub>	Maximum Reverse Leakage Current			Typ. Temp. Coeff. T <sub>c</sub> @ I <sub>ZT</sub>	Maximum Continuous Current ★ I <sub>ZM</sub>	Maximum Surge Current ‡ I <sub>S</sub>
					I <sub>R</sub>	±5% V <sub>R</sub>	±10% V <sub>R</sub>			
±5% Tolerance	±10% Tolerance	Volts	mA	Ohms	µA	Volts	Volts	%/°C	mA	Amps
<b>UZ5113</b>	<b>UZ5213</b>	130	10	190	5	98.8	93.6	.105	35	0.80
<b>UZ5114</b>	<b>UZ5214</b>	140	8	230	5	106.0	101.0	.105	33	0.80
<b>UZ5115</b>	<b>UZ5215</b>	150	8	330	5	114.0	108.0	.105	31	0.75
<b>UZ5116</b>	<b>UZ5216</b>	160	8	350	5	122.0	115.0	.105	30	0.70
<b>UZ5117</b>	<b>UZ5217</b>	170	8	380	5	129.0	122.0	.105	27	0.65
<b>UZ5118</b>	<b>UZ5218</b>	180	5	450	5	137	129	.110	25	0.60
<b>UZ5119</b>	<b>UZ5219</b>	190	5	470	5	144	137	.110	24	0.55
<b>UZ5120</b>	<b>UZ5220</b>	200	5	500	5	152	144	.110	22	0.50
<b>UZ5122</b>	<b>UZ5222</b>	220	5	550	5	167	158	.115	20	0.45
<b>UZ5124</b>	<b>UZ5224</b>	240	5	650	5	182	173	.115	18	0.40
<b>UZ5126</b>	<b>UZ5226</b>	260	5	750	5	198	187	.120	17	0.35
<b>UZ5128</b>	<b>UZ5228</b>	280	4	850	5	213	202	.120	16	0.30
<b>UZ5130</b>	<b>UZ5230</b>	300	4	950	5	228	216	.120	15	0.25
<b>UZ5132</b>	<b>UZ5232</b>	320	4	1100	5	243	230	.120	14	0.24
<b>UZ5134</b>	<b>UZ5234</b>	340	4	1200	5	258	245	.120	13	0.23
<b>UZ5136</b>	<b>UZ5236</b>	360	3	1400	5	274	259	.120	12	0.22
<b>UZ5138</b>	<b>UZ5238</b>	380	3	1500	5	289	274	.120	12	0.21
<b>UZ5140</b>	<b>UZ5240</b>	400	3	1800	5	304	288	.120	11	0.20

Temperature Range: Operating and Storage -65° to +175°C

Notes:

- \* Specify 20% tolerance by changing the second numeral of type number from 8 to 9 (UZ5809 becomes UZ5909) or from 2 to 3 (UZ5211 becomes UZ5311)
- † All zener voltages are measured with an automated test set using a 35 millisecond test time. Longer or shorter test times will have a corresponding effect on the measured value due to the heating effects.
- § Zener impedance is derived from the 60-cycle AC voltage created when AC current with RMS value of 10 % of DC zener test current is superimposed on the test current.
- ★ Maximum current based on 5 watt rating. See lead temperature derating curves for proper mounting methods.
- ‡ Figures shown are for a peak sinusoidal surge current of 8.3ms duration using 60 cycle AC. The 8.3ms square pulse rate is 71% of the value shown.



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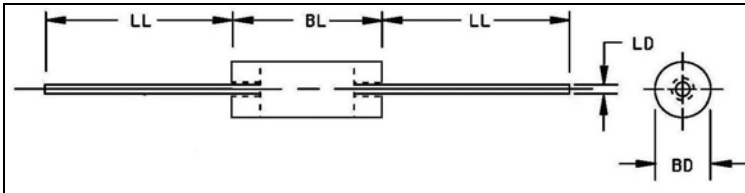
**UZ5706, UZ5806 SERIES**

**POWER ZENERS**

5 WATT

## MECHANICAL CHARACTERISTICS

<b>Case:</b>	Glass
<b>Marking:</b>	Body painted, alpha-numeric
<b>Polarity:</b>	Cathode band.



	Dimensions			
	UZ5706 & UZ5806 SERIES			
	Inches		Millimeters	
	Min	Max	Min	Max
<b>BD</b>	-	0.145	-	3.680
<b>BL</b>	-	0.300	-	7.620
<b>LD</b>	0.037	0.043	0.940	1.092
<b>LL</b>	0.975	-	24.800	-

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.