

DIGITRON SEMICONDUCTORS

UZ7706, UZ7806 SERIES

6 WATT POWER ZENERS

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.

MAXIMUM RATING

Zener Voltage (V_Z):	6.8 to 100V
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

Part number		Nominal Zener Voltage † V _Z @ I _{ZT}	Test Current I _{ZT}	Max. Zener Impedance § Z _Z @ I _{ZT}	Maximum Reverse Leakage Current			Maximum Continuous Current ★ I _{ZM}	Maximum Surge Current ‡ I _S	Typical Temperature Coefficient T _C @ I _{ZT}
					I _R @ V _R	±5% V _R	±10% V _R			
±5% Tolerance	±10% Tolerance	Volts	mA	Ohms	µA	Volts	Volts	mA	Amps	%/°C
UZ7706	UZ7806	6.8	350	0.6	1000	5.2	4.9	1350	50	0.040
UZ7707	UZ7807	7.5	325	0.7	800	5.7	5.4	1250	41	0.040
UZ7708	UZ7808	8.2	300	0.8	200	6.2	5.9	1150	31	0.050
UZ7709	UZ7809	9.1	275	1.0	150	6.9	6.6	1020	29	0.050
UZ7710	UZ7810	10	250	1.0	100	7.6	7.2	950	26	0.060
UZ7712	UZ7812	12	200	1.3	75	9.1	8.6	770	23	0.070
UZ7713	UZ7813	13	200	1.5	50	9.9	9.3	700	21	0.070
UZ7714	UZ7814	14	175	1.5	40	10.6	10.1	640	20	0.070
UZ7715	UZ7815	15	150	2.0	30	11.4	10.8	600	17	0.070
UZ7716	UZ7816	16	150	2.5	20	12.1	11.5	550	15	0.070
UZ7718	UZ7818	18	130	3.5	20	13.7	12.9	500	13	0.080
UZ7720	UZ7820	20	120	4.0	20	15.2	14.4	440	12	0.080
UZ7722	UZ7822	22	100	4.5	20	16.7	15.8	390	11	0.080
UZ7724	UZ7824	24	100	5.0	20	18.2	17.3	360	10	0.080
UZ7727	UZ7827	27	90	6.0	20	20.6	19.4	310	9	0.090
UZ7730	UZ7830	30	80	8.0	20	22.8	21.6	280	8.5	0.090
UZ7733	UZ7833	33	70	10.0	10	25.1	23.7	260	7.5	0.090
UZ7736	UZ7836	36	60	12.0	10	27.4	25.9	240	7.0	0.090
UZ7740	UZ7840	40	60	15.0	10	30.4	28.8	210	6.4	0.095
UZ7745	UZ7845	45	50	20.0	10	34.2	32.4	180	5.5	0.095
UZ7750	UZ7850	50	50	22.0	10	38.0	36.0	170	4.6	0.095
UZ7756	UZ7856	56	40	30.0	10	42.6	40.3	160	4.1	0.095
UZ7760	UZ7860	60	40	35.0	10	45.6	43.2	150	3.7	0.095
UZ7770	UZ7870	70	35	40.0	10	53.2	50.4	130	3.3	0.095
UZ7775	UZ7875	75	30	45.0	10	56.0	54.0	120	3.1	0.095
UZ7780	UZ7880	80	30	60.0	10	60.8	57.6	110	2.9	0.095
UZ7790	UZ7890	90	25	75.0	10	68.4	64.8	100	2.6	0.095
UZ7110	UZ7210	100	20	90.0	10	76.0	72.0	90	2.3	0.100

† 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 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.

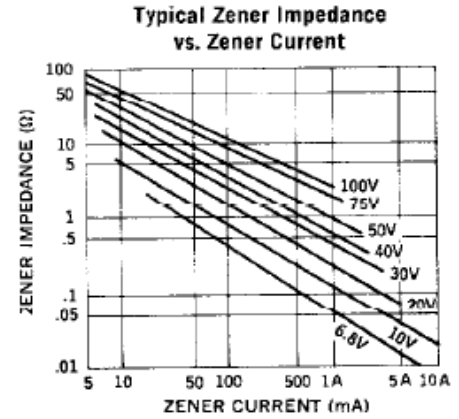
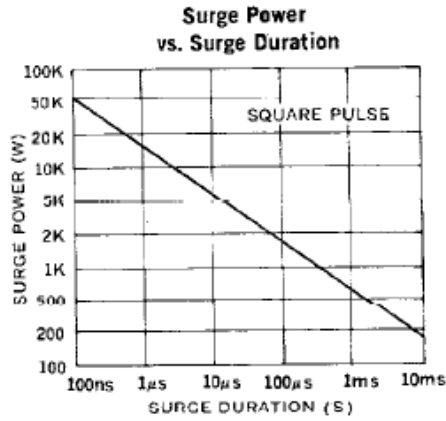
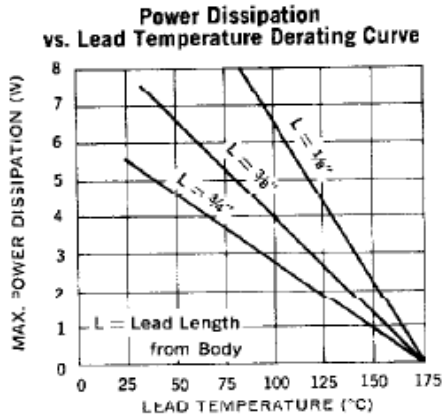
★ Ratings are based on 100°C case temperature: for leaded devices multiply by 0.6.

‡ Figures shown are for a peak sinusoidal surge current of 8.3ms duration using non-repetitive. The 8.3 ms square pulse rating is 71% of the value shown.

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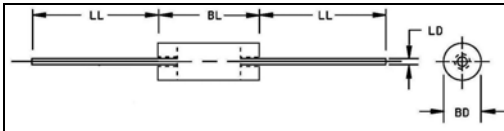
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MECHANICAL CHARACTERISTICS

Case	Digi B
Polarity	Cathode band
Marking	Alpha numeric



Dim	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.135	-	3.429
BL	-	0.250	-	6.350
LD	0.038	0.042	0.965	1.067
LL	0.975	-	24.765	-