DIGITRON™ Semiconductors

High-reliability discrete products
and engineering services since 1977

UZ806 SERIES

3 WATT ZENER DIODES

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

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 to +175°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

TYPE*	ELECTRICAL SPECIFICATIONS @ 25°c							MAXIMUM RATINGS	
	Nominal Zener Voltage †	Test Current	Max. Zener Impedance §	Maximum Reverse Leakage Current			Typ. Temp. Coefficient	Maximum Continuous Current ★	Maximum Surge Current ‡
	V_Z @ I_{ZT}	I_{ZT}	Z_Z @ I_{ZT}	I_R @ V_R	+/- 5% V_R	+/-10% V_R	T_C @ I_{ZT}	I_{ZM}	I_S
+/- 10% Tolerance	Volts	mA	Ohms	µA	Volts	Volts	%/°C	mA	Amps
UZ806	6.8	75	2	500	5.2	4.9	.04	440	10.0
UZ807	7.5	75	2	300	5.7	5.4	.04	400	8.0
UZ808	8.2	75	3	200	6.2	5.9	.05	360	7.0
UZ809	9.1	75	3	100	6.9	6.6	.05	330	6.0
UZ810	10.0	75	4	40	7.6	7.2	.06	300	5.0
UZ812	12	65	5	10	9.1	8.6	.07	250	4.0
UZ813	13	50	6	10	9.9	9.3	.07	230	4.0
UZ814	14	50	6	10	10.6	10.1	.07	210	4.0
UZ815	15	50	6	10	11.4	10.8	.07	200	3.0
UZ816	16	50	7	5	12.2	11.5	.07	185	3.0
UZ818	18	40	8	5	13.7	12.9	.08	170	2.0
UZ820	20	40	9	5	15.2	14.4	.08	150	2.0
UZ822	22	30	10	5	16.7	15.8	.08	135	2.0
UZ824	24	30	10	5	18.2	17.3	.08	125	1.5
UZ827	27	25	12	1	20.6	19.4	.09	110	1.5
UZ830	30	25	15	1	22.8	21.6	.090	100	1.5
UZ833	33	20	21	1	25.1	23.7	.090	90	1.2
UZ836	36	20	21	1	27.4	25.9	.090	85	1.0
UZ840	40	20	27	1	30.4	28.8	.095	75	1.0
UZ845	45	15	37	1	34.2	32.4	.095	65	0.8

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	V_Z @ I_{ZT}	I_{ZT}	Z_Z @ I_{ZT}	I_R @ V_R	+/- 5% V_R	+/-10% V_R	T_C @ I_{ZT}	I_{ZM}	I_S
+/- 10% Tolerance	**Volts**	**mA**	**Ohms**	**µA**	**Volts**	**Volts**	**%/°C**	**mA**	**Amps**
UZ850	50	15	50	1	38.0	36.0	.095	60	0.8
UZ856	56	10	70	1	42.6	40.3	.095	55	0.7
UZ860	60	10	70	1	45.7	43.2	.095	50	0.6
UZ870	70	10	90	1	53.3	50.5	.095	45	0.6
UZ875	75	10	100	1	56.0	54.0	.095	40	0.5
UZ880	80	10	115	1	60.8	57.7	.095	35	0.4
UZ890	90	8.0	150	1	68.5	64.8	.095	30	0.4

* Specify 20% voltage tolerance by changing first numeral of type number from 8 to 9.

* Specify 5% voltage tolerance by changing first numeral of type number from 8 to 7.

† All zener voltages are measured with an automated test set using a 35 ms 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.

★ Maximum current based on 3 watt rating,

‡ Figures shown are for a peak sinusoidal surge current of 8.3 ms duration using 60 cycle AC. The 8.3 ms square pulse rating is 71% of the value shown.

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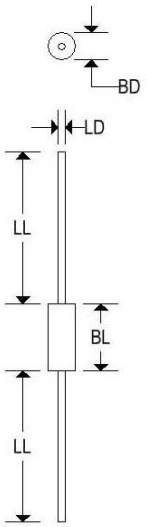
MECHANICAL CHARACTERISTICS

Case:	Digi A
Polarity:	Cathode band
V_F:	I_C = 1.0 A; V_F = 1.35 V Max



	Digi A			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.095	-	2.413
BL	-	0.180	-	4.572
LD	0.028	0.032	0.711	0.813
LL	0.700	-	17.800	-