

POWER ZENERS

3 Watt

UZ706 SERIES
 UZ806 SERIES
 UZ706HR2 SERIES
 UZ806HR2 SERIES

FEATURES

- 10 Times Greater Surge Rating than Conventional 1 Watt Types
- Small Physical Size

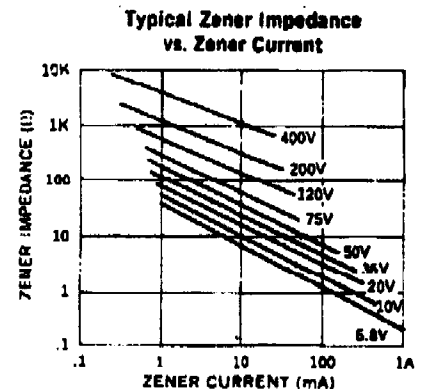
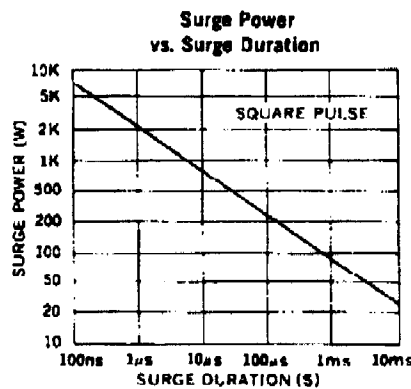
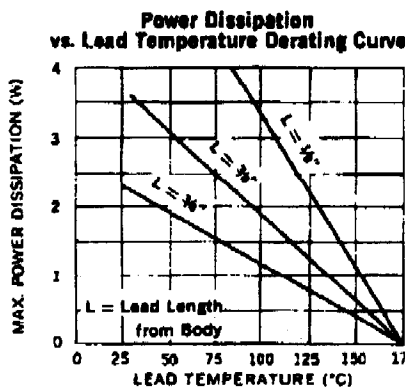
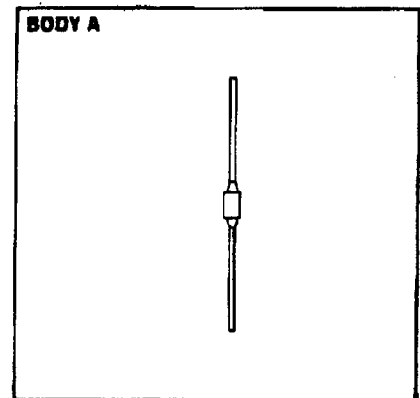
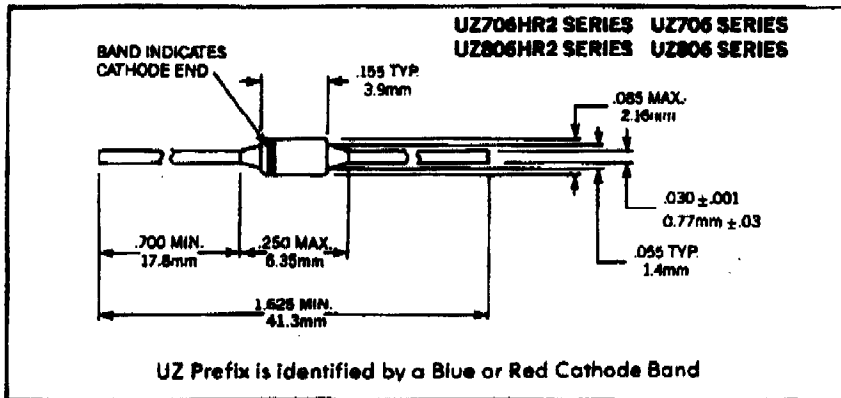
DESCRIPTION

Fused-in-glass metallurgically bonded 3 watt zener diodes.

ABSOLUTE MAXIMUM RATINGS

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

MECHANICAL SPECIFICATIONS



OPTIONAL HIGH RELIABILITY (HR2) SCREENING

The following tests are performed on 100% of the devices specified UZ706 through UZ140HR2.

SCREEN	MIL-STD-750 METHOD	CONDITIONS
1. High Temperature	1032	24 Hours @ $T_A = 175^\circ\text{C}$
2. Temperature Cycling	1051	C, 20 Cycles, -65 to $+175^\circ\text{C}$. No dwell required @ $25^\circ\text{C} > 10$ min. at extremes
3. Hermetic Seal @ Gross Leak	1071	E, ZYGLO
4. Interim Electrical Parameters	GO/NO GO	$V_Z + I_R @ 25^\circ\text{C}$
5. Power Burn-in	1038	B, 96 Hours, $T_A = 25^\circ\text{C}$, I_Z adjusted so that $150^\circ\text{C} < T_j < 175^\circ\text{C}$
6. Final Electrical Parameters	GO/NO GO	$V_Z + I_R @ 25^\circ\text{C}$ PDA = 10% (Final Electricals)

UZ706 SERIES
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Type *	Electrical Specifications at 25°C							Maximum Ratings	
	Nominal Zener Voltage † V _Z @ I _{ZT}	Test Current I _{ZT}	Max. Zener Impedance ‡	Maximum Reverse Leakage Current			Typ. Temp. Coefficient T _C @ I _{ZT}	Maximum Continuous Current * I _{ZM}	Maximum Surge Current †† I _S
			Z _Z @ I _{ZT}	I _R @ V _R	± 5% V _R	± 10% V _R			
±5% Tolerance	Volts	mA	Ohms	µA	Volts	Volts	%/°C	mA	Amps
UZ706/706HR2	6.8	75	2	500	5.2	4.9	.04	440	10.0
UZ707/707HR2	7.5	75	2	300	5.7	5.4	.04	400	8.0
UZ708/708HR2	8.2	75	3	200	6.2	5.9	.05	360	7.0
UZ709/709HR2	9.1	75	3	100	6.9	6.6	.05	330	6.0
UZ710/710HR2	10.0	75	4	40	7.6	7.2	.06	300	5.0
UZ712/712HR2	12	65	5	10	9.1	8.6	.07	250	4.0
UZ713/713HR2	13	50	6	10	9.9	9.3	.07	230	4.0
UZ714/714HR2	14	50	6	10	10.6	10.1	.07	210	4.0
UZ715/715HR2	15	50	6	10	11.4	10.8	.07	200	3.0
UZ716/716HR2	16	50	7	5	12.2	11.5	.07	185	3.0
UZ718/718HR2	18	40	8	5	13.7	12.9	.08	170	2.0
UZ720/720HR2	20	40	9	5	15.2	14.4	.08	150	2.0
UZ722/722HR2	22	30	10	5	16.7	15.8	.08	135	2.0
UZ724/724HR2	24	30	10	5	18.2	17.3	.08	125	1.5
UZ727/727HR2	27	25	12	1	20.6	19.4	.09	110	1.5
UZ730/730HR2	30	25	15	1	22.8	21.6	.090	100	1.5
UZ733/733HR2	33	20	21	1	25.1	23.7	.090	90	1.2
UZ736/736HR2	36	20	21	1	27.4	25.9	.090	85	1.0
UZ740/740HR2	40	20	27	1	30.4	28.8	.095	75	1.0
UZ745/745HR2	45	15	37	1	34.2	32.4	.095	65	0.8
UZ750/750HR2	50	15	50	1	38.0	36.0	.095	60	0.8
UZ756/756HR2	56	10	70	1	42.6	40.3	.095	55	0.7
UZ760/760HR2	60	10	70	1	45.7	43.2	.095	50	0.6
UZ770/770HR2	70	10	90	1	53.3	50.5	.095	45	0.6
UZ775/775HR2	75	10	100	1	56.0	54.0	.095	40	0.5
UZ780/780HR2	80	10	115	1	60.8	57.7	.095	35	0.4
UZ790/790HR2	90	8.0	150	1	68.5	64.8	.095	30	0.4
UZ110/110HR2	100	5.0	175	1	76.0	72.0	.100	30	0.4
UZ111/111HR2	110	5.0	250	1	83.6	79.2	.100	25	0.3
UZ112/112HR2	120	5.0	325	1	91.2	86.4	.100	25	0.2
UZ113/113HR2	130	5.0	375	1	98.8	93.6	.100	20	0.20
UZ114/114HR2	140	5.0	550	1	106	101	.100	20	0.20
UZ115/115HR2	150	5.0	650	1	114	108	.100	20	0.20
UZ116/116HR2	160	4.0	700	1	122	115	.100	20	0.15
UZ117/117HR2	170	4.0	750	1	129	122	.100	18	0.15
UZ118/118HR2	180	4.0	850	1	137	129	.100	18	0.10
UZ119/119HR2	190	4.0	900	1	144	137	.100	15	0.10
UZ120/120HR2	200	4.0	950	1	152	144	.100	15	0.10
UZ122/122HR2	220	3.0	1100	1	167	158	.100	15	0.09
UZ124/124HR2	240	3.0	1300	1	182	173	.105	12	0.09
UZ126/126HR2	260	3.0	1500	1	198	187	.105	12	0.08
UZ128/128HR2	280	3.0	1700	1	213	202	.105	10	0.08
UZ130/130HR2	300	3.0	1900	1	228	216	.105	10	0.07
UZ132/132HR2	320	2.0	2100	1	243	230	.105	9	0.07
UZ134/134HR2	340	2.0	2400	1	258	245	.110	9	0.06
UZ136/136HR2	360	2.0	2700	1	274	259	.110	8	0.06
UZ138/138HR2	380	2.0	3000	1	289	274	.110	8	0.06
UZ140/140HR2	400	2.0	3500	1	304	288	.110	7	0.06