



High-reliability discrete products
and engineering services since 1977

UZ110-UZ140

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 ($T_A = 25^\circ\text{C}$ 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
+/- 5% Tolerance	Volts	mA	Ohms	µA	Volts	Volts	%/°C	mA	Amps
UZ110	100	5.0	175	1	76.0	72.0	.100	30	0.4
UZ111	110	5.0	250	1	83.6	79.2	.100	25	0.3
UZ112	120	5.0	325	1	91.2	86.4	.100	25	0.2
UZ113	130	5.0	375	1	98.8	93.6	.100	20	0.20
UZ114	140	5.0	550	1	106	101	.100	20	0.20
UZ115	150	4.0	650	1	114	108	.100	20	0.20
UZ116	160	4.0	700	1	122	115	.100	20	0.15
UZ117	170	4.0	750	1	129	122	.100	18	0.15
UZ118	180	4.0	850	1	137	129	.100	18	0.10
UZ119	190	4.0	900	1	144	137	.100	15	0.10
UZ120	200	3.0	950	1	152	144	.100	15	0.10
UZ122	220	3.0	1100	1	167	158	.100	15	0.09
UZ124	240	3.0	1300	1	182	173	.105	12	0.09
UZ126	260	3.0	1500	1	198	187	.105	12	0.08
UZ128	280	3.0	1700	1	213	202	.105	10	0.08
UZ130	300	2.0	1900	1	228	216	.105	10	0.08
UZ132	320	2.0	2100	1	243	230	.105	9	0.07
UZ134	340	2.0	2400	1	258	245	.110	9	0.06

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				$Z_Z @ I_{ZT}$	$I_R @ V_R$	$+/- 5\% V_R$			
+/- 5% Tolerance	Volts	mA	Ohms	µA	Volts	Volts	%/°C	mA	Amps
UZ136	360	2.0	2700	1	274	259	.110	8	0.06
UZ138	380	2.0	3000	1	289	274	.110	8	0.06
UZ140	400	2.0	3500	1	304	288	.110	7	0.06

- Specify 20% voltage tolerance by changing first numeral of type number from 7 to 9 or from 1 to 3.

- Specify 10% voltage tolerance by changing first numeral of type number from 7 to 8 or from 1 to 2.

† 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.

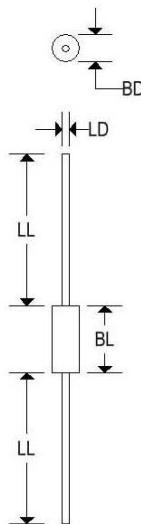
§ Zener impedance is derived from the 60-cycle AC voltage created when AC current with RMS value of 10% of DC zener test current is superimposed on the test current.

- 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 is 71% of the value shown.

MECHANICAL CHARACTERISTICS

Case:	Digi A
Polarity:	Cathode band
V_F :	$I_C = 1.0 \text{ A}; V_F = 1.35 \text{ V Max}$



	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	-