DIGITRON™ Semiconductors

High-reliability discrete products
and engineering services since 1977

1N6632-1N6637

5 WATT GLASS ZENER DIODE

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

Operating Temperature:	-65 to +175°C
Storage Temperature:	-65 to +175°C
Power Dissipation:	5 Watts @ T_L = 25°C at 3/8” from body, derate linearly to zero @ 175°C.
Thermal Resistance:	30°C/W junction to lead at 3/8” from body
Thermal Impedance @ 10ms:	3.0°C/W
Forward Voltage:	1.50 V @ 1.0A

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

Type	Electrical Specifications @ 25°C								Maximum Ratings	
	Nominal Zener Voltage V_Z @ I_{ZT}	Test Current I_{ZT}	Maximum Zener Impedance		Voltage Regulation $\triangle V_Z$ (note 1)	Maximum Reverse Leakage Current Voltage		Maximum Temperature Coeff. α_{VZ} @ I_{ZT}	Maximum Continuous Current I_{ZM}	Surge Current I_{ZSM}
			Z_Z @ I_{ZT}	Z_{ZK} @ I_{ZK} = 1mA		I_R	V_R			8.3ms square wave
	Volts	mA	OHMS	OHMS	Volts	µA	Volts	%/°C	mA	Amps
1N6632	3.3	380	3.0	500	0.90	300	1.0	-0.075	1440	20.0
1N6633	3.6	350	2.5	500	0.80	250	1.0	-0.070	1320	18.7
1N6634	3.9	320	2.0	500	0.75	175	1.0	-0.060	1220	17.6
1N6635	4.3	290	2.0	500	0.70	25	1.0	-0.050	1100	16.4
1N6636	4.7	260	2.0	450	0.60	20	1.0	±0.025	1010	15.3
1N6637	5.1	240	1.5	400	0.50	5	1.0	±0.030	930	14.4

Standard voltage tolerances are ±5% with no suffix, suffix C ±2% and D suffix is ±1%.
Note 1: Maximum voltage change ΔV_Z between 10% of I_{ZM} and 50% of I_{ZM}.

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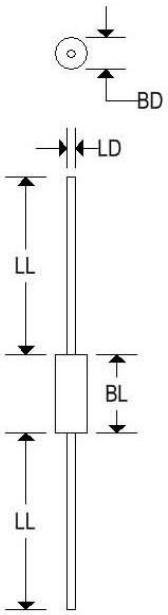
MECHANICAL CHARACTERISTICS

Case:	Digi F
Marking:	Body painted, alpha-numeric
Polarity:	Cathode band



	Digi F			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.135	-	3.429
BL	-	0.180	-	4.572
LD	0.038	0.042	0.965	1.067
LL	1.000	-	25.400	-

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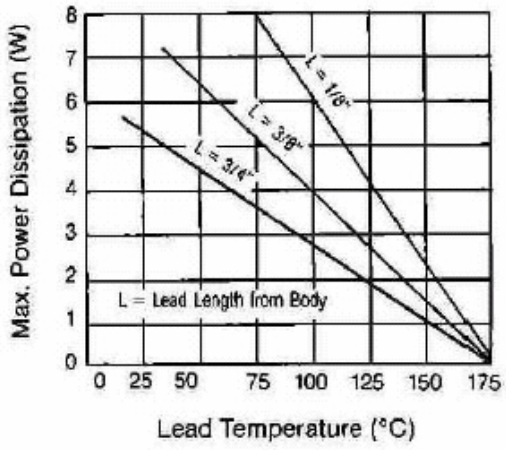

FIGURE 1
POWER DISSIPATION vs. LEAD TEMPERATURE DERATING CURVE

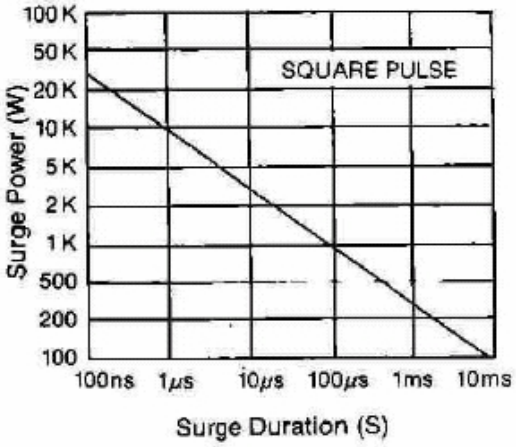

FIGURE 2
SURGE POWER vs. SURGE DURATION

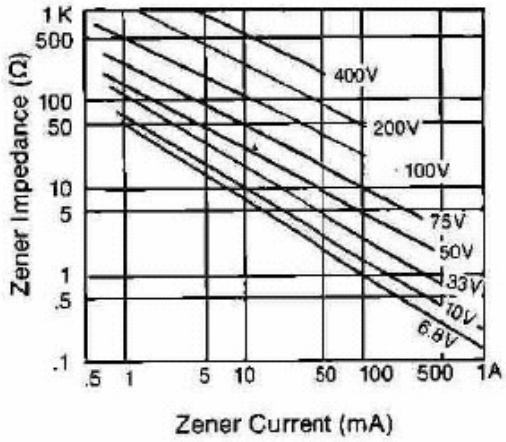

FIGURE 3
TYPICAL ZENER IMPEDANCE vs. ZENER CURRENT