

DIGITRON SEMICONDUCTORS

1N5968-1N5969, 1N6632-1N6637

5 WATT GLASS ZENER DIODES

MAXIMUM RATINGS

Operating Temperature:	-65 to +175°C
Storage Temperature:	-65 to +200°C
Power dissipation	5W @ $T_L = 25^\circ\text{C}$, $L = 3/8"$
Power derating	33mW/°C above $T_L = 25^\circ\text{C}$, $L = 3/8"$
Forward voltage	1.5V dc @ $I_F = 1\text{A}$ dc
Thermal resistance	30°C/W maximum

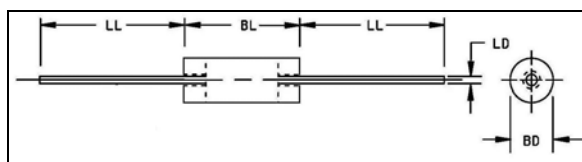
ELECTRICAL CHARACTERISTICS

Type	Electrical Specifications @ 25°C							Maximum Ratings		
	Nominal Zener Voltage $V_Z @ I_{ZT}$	Test Current I_{ZT}	Maximum Zener Impedance		Voltage Regulation ΔV_Z	Maximum Reverse Leakage Current Voltage		Maximum Temperature Coeff. $\alpha_{VZ} @ I_{ZT}$	Maximum Continuous Current I_{ZM}	Surge Current I_{ZSM}
			$Z_{ZT} @ I_{ZT}$	$Z_{ZK}^* @ I_{ZK} = 1\text{mA}$		I_R	V_R			
Volts	mA	OHMS	OHMS	Volts	μA	Volts	%/°C	mA	Amps	
1N6632	3.3	380	3.0	500	0.90	300	1.0	-.075	1440	20.0
1N6633	3.6	350	2.5	500	0.80	250	1.0	-.070	1320	18.7
1N6634	3.9	320	2.0	500	0.75	175	1.0	-.060	1220	17.6
1N6635	4.3	290	2.0	500	0.70	25	1.0	-.050	1100	16.4
1N6636	4.7	260	2.0	450	0.60	20	1.0	$\pm .025$	1010	15.3
1N6637	5.1	240	1.5	400	0.50	5	1.0	$\pm .030$	930	14.4
1N5968	5.6	220	1.0	400	0.4	5000	4.28	.04	865	20
1N5969	6.2	220	1.0	1000	0.5	1000	4.74	.04	765	20

* $I_{ZK} = 5\text{mA}$ for 1N5968

MECHANICAL CHARACTERISTICS

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



	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.090	0.145	2.2900	3.680
BL	0.130	0.300	3.300	7.620
LD	0.037	0.043	0.940	1.090
LL	1.000	1.300	25.400	33.020

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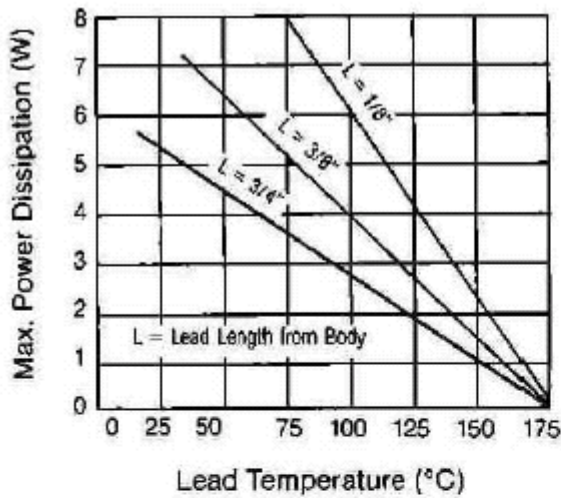


FIGURE 1
POWER DISSIPATION vs. LEAD
TEMPERATURE DERATING CURVE

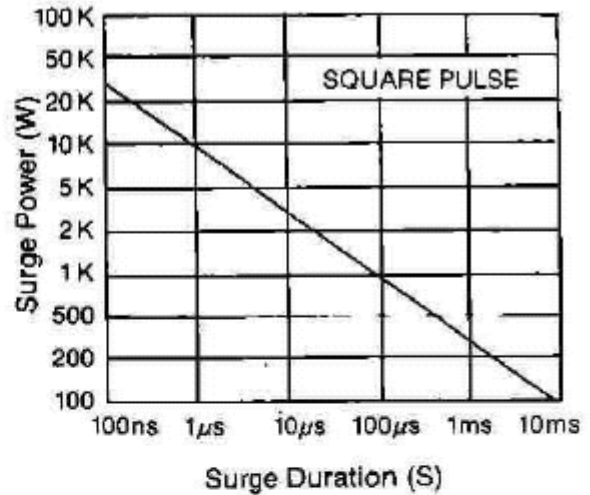


FIGURE 2
SURGE POWER vs.
SURGE DURATION

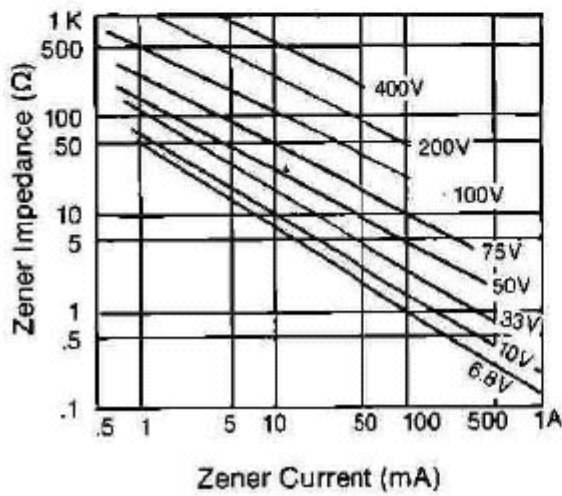


FIGURE 3
TYPICAL ZENER IMPEDANCE vs.
ZENER CURRENT

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.