



**1N4954 thru  
1N4996,  
1N5968 thru  
1N5969,  
and  
1N6632 thru  
1N6637**



**FEATURES**

- MICROMINIATURE PACKAGE
- VOIDLESS HERMETICALLY SEALED GLASS PACKAGE
- TRIPLE LAYER PASSIVATION
- METALLURGICALLY BONDED
- HIGH PERFORMANCE CHARACTERISTICS
- VERY LOW THERMAL IMPEDANCE
- JAN/S/TX/TXV TYPES AVAILABLE PER MIL-S-19500/356

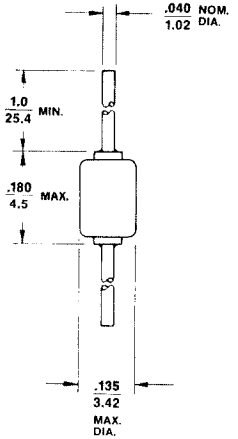
**MAXIMUM RATINGS**

Operating Temperature: -65°C to +175°C  
Storage Temperature: -65°C to +200°C

**5 WATT  
GLASS  
ZENER DIODES**

**ELECTRICAL CHARACTERISTICS (continued on next page)**

TYPE*	ELECTRICAL SPECIFICATIONS AT 25°C									
	NOMINAL ZENER VOLTAGE $V_Z @ I_ZT$	TEST CURRENT $I_ZT$	MAXIMUM ZENER IMPEDANCE		REGULATION $\Delta V_Z / \Delta V_Z$	MAXIMUM REVERSE LEAKAGE CURRENT VOLTAGE		MAXIMUM TEMPERATURE COEFF. $T_C @ I_ZT$	MAXIMUM CONTINUOUS CURRENT $I_ZM$	SURGE CURRENT $I_ZSM$
			$Z_Z @ I_ZT$	$Z_{ZK} @ 1mA$		$I_R$	$V_R$			
	VOLTS	mA	OHMS	OHMS	VOLTS	$\mu A$	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	±.025	1010	15.3
1N6637	5.1	240	1.5	400	0.50	5	1.0	±.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
1N4954	6.8	175	1.0	1000	0.7	150	5.2	.05	700	40
1N4955	7.5	175	1.5	800	0.7	100	5.7	.06	630	32
1N4956	8.2	150	1.5	600	0.7	50	6.2	.06	580	24
1N4957	9.1	150	2.0	400	0.7	25	6.9	.06	520	22
1N4958	10.0	125	2.0	125	0.8	25	7.6	.07	475	20
1N4959	11	125	2.5	130	0.8	10	8.4	.07	430	19
1N4960	12	100	2.5	140	0.8	10	9.1	.07	395	18
1N4961	13	100	3.0	145	0.8	10	9.9	.08	365	16
1N4962	15	75	3.5	150	1.0	5	11.4	.08	315	12
1N4963	16	75	3.5	155	1.1	5	12.2	.08	294	10
1N4964	18	65	4.0	160	1.2	5	13.7	.085	264	9.0
1N4965	20	65	4.5	165	1.5	2	15.2	.085	237	8.0
1N4966	22	50	5.0	170	1.8	2	16.7	.085	216	7.0
1N4967	24	50	5.0	175	2.0	2	18.2	.090	198	6.5
1N4968	27	50	6.0	180	2.0	2	20.6	.090	176	6.0
1N4969	30	40	8	190	2.5	2	22.8	.090	158	5.5
1N4970	33	40	10	200	2.8	2	25.1	.095	144	5.0
1N4971	36	30	11	220	3.0	2	27.4	.095	132	4.5
1N4972	39	30	14	230	3.0	2	29.7	.095	122	4.0
1N4973	43	30	20	240	3.3	2	32.7	.095	110	3.5
1N4974	47	25	25	250	3.5	2	35.8	.095	100	3.2
1N4975	51	25	27	270	4.0	2	38.8	.095	92	3.0
1N4976	56	20	35	320	4.4	2	42.6	.095	84	2.8
1N4977	62	20	42	400	5.0	2	47.1	.100	76	2.5
1N4978	68	20	50	500	5.5	2	51.7	.100	70	2.2
1N4979	75	20	55	620	6.0	2	56.0	.100	63.0	2.0
1N4980	82	15	80	720	6.6	2	62.2	.100	58.0	1.8
1N4981	91	15	90	760	7.5	2	69.2	.100	52.5	1.6
1N4982	100	12	110	800	8.0	2	76.0	.100	47.5	1.4
1N4983	110	12	125	1000	9.0	2	83.6	.100	43.0	1.2
1N4984	120	10	170	1150	10	2	91.2	.100	39.5	1.00
1N4985	130	10	190	1250	11	2	98.8	.105	36.6	0.80
1N4986	150	8	330	1500	13	2	114.0	.105	31.6	0.75
1N4987	160	8	350	1650	14	2	121.6	.105	29.4	0.70
1N4988	180	5	450	1750	16	2	136.8	.110	26.4	0.60
1N4989	200	5	500	1850	18	2	152	.110	23.6	0.50
1N4990	220	5	550	2000	19	2	167	.115	21.6	0.50
1N4991	240	5	650	2050	22	2	182	.115	19.8	0.40



**FIGURE 1  
PACKAGE E**

**MECHANICAL CHARACTERISTICS**

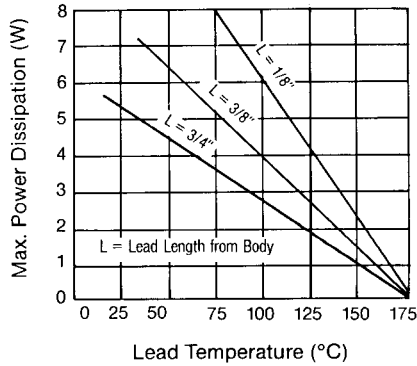
- CASE: Hermetically sealed glass case.
- LEAD MATERIAL: Silver clad copper
- MARKING: Body painted, alpha numeric.
- POLARITY: Cathode band.

\*IZK = 5mA for 1N5968

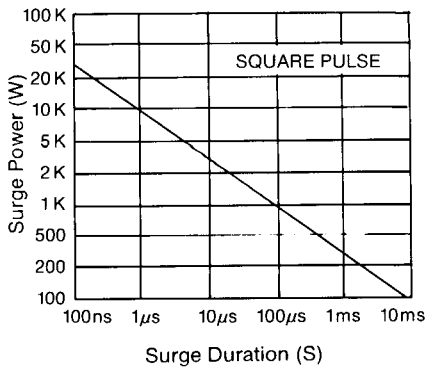
# 1N4954 thru 1N4996, 1N5968 thru 1N5969, and 1N6632 thru 1N6637

## ELECTRICAL CHARACTERISTICS (continued from page 5-37)

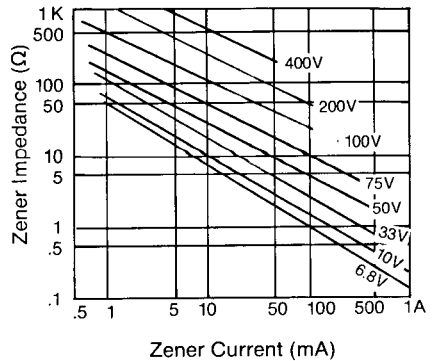
TYPE*	ELECTRICAL SPECIFICATIONS AT 25 °C									
	NOMINAL ZENER VOLTAGE $V_Z @ I_{ZT}$	TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDANCE		REGULATION $\Delta V_Z / \Delta V_Z$	MAXIMUM REVERSE LEAKAGE CURRENT VOLTAGE		MAXIMUM TEMPERATURE COEFF $T_C @ I_{ZT}$	MAXIMUM CONTINUOUS CURRENT $I_{ZM}$	SURGE CURRENT $I_{ZSM}$
			$Z_T @ I_{ZT}$	$Z_{TK} @ I_{ZK} = 1mA$		$I_R$	$V_R$			
VOLTS	mA	OHMS	OHMS	VOLTS	$\mu A$	VOLTS	%/°C	mA	AMPS	
1N4992	270	5	800	2100	25	2	206	.120	17.5	0.35
1N4993	300	4	950	2150	28	2	228	.120	15.6	0.30
1N4994	330	4	1175	2200	32	2	251	.120	14.4	0.25
1N4995	360	3	1400	2300	35	2	274	.120	13.0	0.22
1N4996	390	3	1800	2500	40	2	297	.120	12.0	0.20



**FIGURE 1**  
POWER DISSIPATION VS. LEAD TEMPERATURE DERATING CURVE



**FIGURE 2**  
SURGE POWER VS. SURGE DURATION



**FIGURE 3**  
TYPICAL ZENER IMPEDANCE VS. ZENER CURRENT