1.5 WATT ZENER (GLASS G-1 CASE)
1N4461-1N4489 SERIES

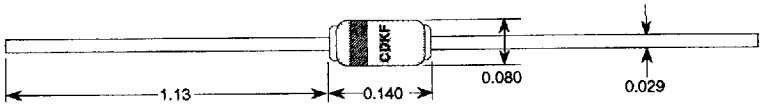
FEATURES:

- Voidless Subminiature Glass Package
- Metallurgically Bonded Glass Construction
- High Temperature Operation
- Designed for High Stress Environments

DESCRIPTION

Semicon's glass Zener series features glass passivation, high temperature metallurgical bonds and a clear fused glass case construction. Small in physical size, they are designed for use in applications where electrical and environmental stress is severe.

Semicon G-1 Glass Package



All dimensions nominal in inches.

Max. Surge Power
vs.
Surge Duration

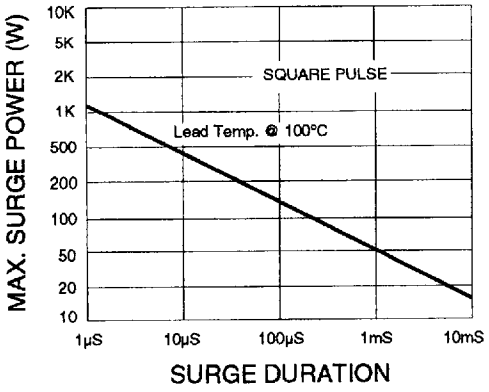


Fig. 1

ABSOLUTE MAXIMUM RATINGS

Zener Voltage (Vz)	6.8 to 100 V
Continuous Current	See Table
Surge Current (8.3ms)	See Table
Surge Power	See Fig. 1
Temperature Derating	See Fig. 2
Storage and Operating Temperature	-65°C to 175°C

Power Dissipation
vs
Lead Temperature Derating Curve

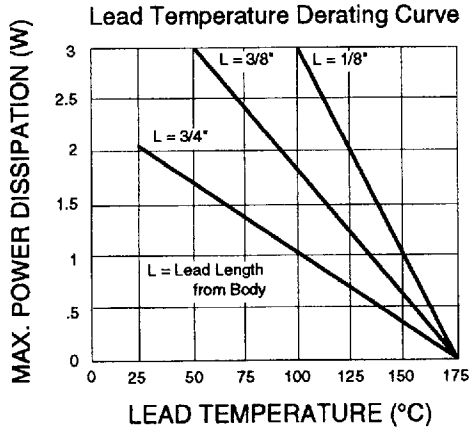


Fig. 2

Typical Zener Impedance
vs.
Zener Current

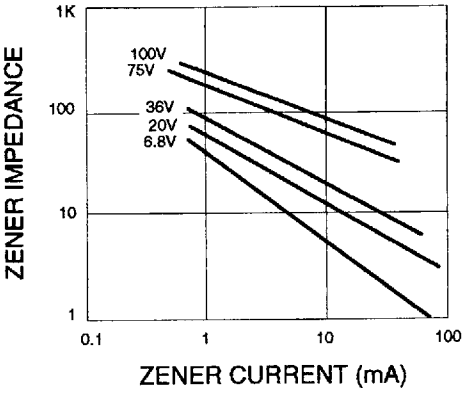


Fig. 3

ELECTRICAL CHARACTERISTICS TA = 25° C

Part Number	Nominal Zener Voltage Vz @ Izt	Test Current Izt	Max. Zener Impedance Zz @ Izt	Zzk @ Izk	Izk	Voltage Reg. ΔBV §§	Maximum Reverse Leakage Current Ir @ Vr	Vr	150°C Ir @ Vr	Maximum Cont. Current * Izm	Maximum Surge Current ** Is	Zener Temp Coef. TC
	± 5% Volts	mA	Ohms	Ohms	mA	Volts	µA	Volts	µA	mA	Amps	%/°C
1N4461	6.8	37.0	2.5	200	1.00	0.30	5.0	4.08	500.0	210	2.1	0.057
1N4462	7.5	34.0	2.5	400	0.50	0.35	1.0	4.50	200.0	191	1.9	0.061
1N4463	8.2	31.0	3.0	400	0.50	0.40	0.50	4.92	100.0	174	1.7	0.065
1N4464	9.1	28.0	4.0	500	0.50	0.45	0.30	5.46	100.0	157		0.068
1N4465	10.0	25.0	5.0	500	0.25	0.50	0.30	8.0	100.0	143	1.4	0.071
1N4466	11.0	23.0	6.0	550	0.25	0.55	0.30	8.8	100.0	130	1.3	0.073
1N4467	12.0	21.0	7.0	550	0.25	0.60	0.20	9.6	100.0	119	1.2	0.076
1N4468	13.0	19.0	8.0	550	0.25	0.65	0.05	10.4	50.00	110	1.1	0.079
1N4469	15.0	17.0	9.0	600	0.25	0.75	0.05	12.0	20.00	95	0.95	0.082
1N4470	16.0	15.5	10	600	0.25	0.80	0.05	12.8	10.00	90	0.90	0.083
1N4471	18.0	14.0	11	650	0.25	0.83	0.05	14.4	5.00	79	0.79	0.085
1N4472	20.0	12.5	12	650	0.25	0.95	0.05	16.0	3.00	71	0.71	0.086
1N4473	22.0	11.5	14	650	0.25	1.0	0.05	17.6	3.00	65	0.65	0.087
1N4474	24.0	10.5	16	700	0.25	1.1	0.05	19.2	2.00	60	0.60	0.088
1N4475	27.0	9.5	18	700	0.25	1.3	0.05	21.6	2.00	53	0.53	0.090
1N4476	30.0	8.5	20	750	0.25	1.4	0.05	24.0	2.00	48	0.48	0.091
1N4477	33.0	7.5	25	800	0.25	1.5	0.05	26.4	2.00	43	0.43	0.092
1N4478	36.0	7.0	27	850	0.25	1.7	0.05	28.8	2.00	40	0.40	0.093
1N4479	39.0	6.5	30	900	0.25	1.8	0.05	31.2	2.00	37	0.37	0.094
1N4480	43.0	6.0	40	950	0.25	1.9	0.05	34.4	2.00	33	0.33	0.095
1N4481	47.0	5.5	50	1000	0.25	2.1	0.05	37.6	2.00	30	0.30	0.095
1N4482	51.0	5.0	60	1100	0.25	2.3	0.05	40.8	2.00	28	0.28	0.096
1N4483	56.0	4.5	70	1300	0.25	2.5	0.25	44.8	10.00	26	0.26	0.096
1N4484	62.0	4.0	80	1500	0.25	2.7	0.25	49.6	10.00	23	0.23	0.097
1N4485	68.0	3.7	100	1700	0.25	3.0	0.25	54.4	10.00	21	0.21	0.097
1N4486	75.0	3.3	130	2000	0.25	3.3	0.25	60.0	10.00	19	0.19	0.098
1N4487	82.0	3.0	160	2500	0.25	3.6	0.25	65.6	10.00	17	0.17	0.098
1N4488	91.0	2.8	200	3000	0.25	4.0	0.25	72.8	10.00	16	0.16	0.099
1N4489	100.0	2.5	250	3100	0.25	4.4	0.25	80.0	10.00	14	0.14	0.100
1N4490	110.0	2.3	300	4000	0.25	5.0	0.25	88.0	10.00	13	0.13	0.100
1N4491	120.0	2.0	400	4500	0.25	5.5	0.25	96.0	10.00	12	0.12	0.100
1N4492	130.0	1.9	500	5000	0.25	6.0	0.25	104.0	10.00	11	0.11	0.100
1N4493	150.0	1.7	700	6000	0.25	7.0	0.25	120.0	10.00	10	0.10	0.100
1N4494	160.0	1.6	1000	6500	0.25	8.0	0.25	128.0	10.00	9	0.09	0.100
1N4495	180.0	1.4	1300	7000	0.25	10.0	0.25	144.0	10.00	8	0.08	0.100
1N4496	200.0	1.2	1500	8000	0.25	12.0	0.25	160.0	10.00	7	0.07	0.100

§§ ΔBV is obtained by measuring the voltage change when the test current is changed from 10% to 50% of Iz max under DC conditions. During this measurement leads are infinitely heat sunk .375 inch from the body and maintained at 25°C

* Maximum current is based on free air operation. See lead temperature derating curves for other mounting methods.

** Figures shown are for peak square pulse surge current of 8.3 mSec duration, non-repetitive, at Ta = 100°C
The 8.3 mSec sinusodal pulse rating is 143% of the value shown.

Available in JAN TX and JAN TXV

Qualified to MIL-S-19500/406