

# DATA SHEET

## GLZ2.0~GLZ56

### SURFACE MOUNT ZENER DIODES

**VOLTAGE** 2.0 to 56 Volts    **POWER** 500 mWatts

**MINI-MELF/LL-34**

Unit : inch (mm)

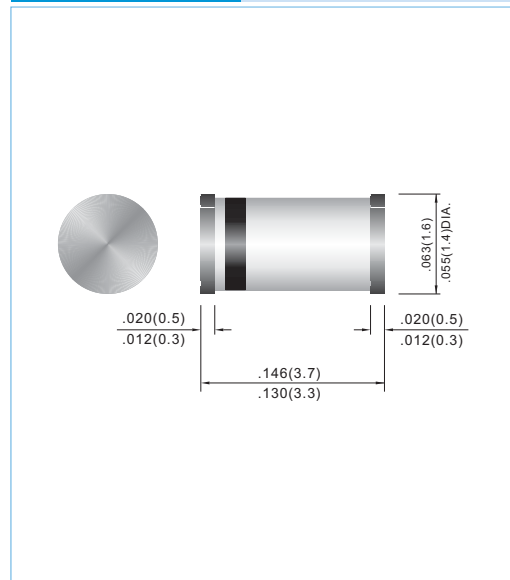
#### FEATURES

- Planar Die construction
- 500mW Power Dissipation
- Ideally Suited for Automated Assembly Processes

#### MECHANICAL DATA

- Case: Molded Glass MINI-MELF
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram Below
- Approx. Weight: 0.008 grams
- Mounting Position: Any
- Packing information

T/R - 2.5K per 7" plastic Reel



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation at Tamb = 25 °C	P <sub>TOT</sub>	500	mW
Junction Temperature	T <sub>J</sub>	175	°C
Storage Temperature Range	T <sub>S</sub>	-65 to +175	°C

Valid provided that leads at a distance of 10mm from case are kept at ambient temperature.

Parameter	Symbol	Min.	Typ.	Max.	Units
Thermal Resistance Junction to Ambient Air	R <sub>thA</sub>	--	--	0.3	K/mW
Forward Voltage at I <sub>F</sub> = 100mA	V <sub>F</sub>	--	--	1	V

Valid provided that leads at a distance of 10mm from case are kept at ambient temperature.

Part Number	CLASS	Vz @ IZT		IZ (mA)	VR (V)	IR(μA) MAX	Izt (mA)	ZzT(Ω) MAX	Izk (mA)	Zzk(Ω) MAX	Marking code
		Min. V	Max. V								
GLZ 2.0	A	1.88	2.10	20	0.5	120	20	140	1	2000	2A0
	B	2.02	2.20								2B0
GLZ 2.2	A	2.12	2.30	20	0.7	120	20	120	1	2000	2A2
	B	2.22	2.41								2B2
GLZ 2.4	A	2.33	2.52	20	1.0	120	20	100	1	2000	2A4
	B	2.43	2.63								2B4
GLZ 2.7	A	2.54	2.75	20	1.0	120	20	100	1	1000	2A7
	B	2.69	2.91								2B7
GLZ 3.0	A	2.85	3.07	20	1.0	50	20	80	1	1000	3A0
	B	3.01	3.22								3B0
GLZ 3.3	A	3.16	3.38	20	1.0	20	20	70	1	1000	3A3
	B	3.32	3.53								3B3
GLZ 3.6	A	3.455	3.695	20	1.0	10	20	60	1	1000	3A6
	B	3.60	3.845								3B6
GLZ 3.9	A	3.74	4.01	20	1.0	5	20	50	1	1000	3A9
	B	3.89	4.16								3B9
GLZ 4.3	A	4.04	4.29	20	1.0	5	20	40	1	1000	4A3
	B	4.17	4.43								4B3
	C	4.30	4.57								4C3
GLZ 4.7	A	4.44	4.68	20	1.0	5	20	25	1	900	4A7
	B	4.55	4.80								4B7
	C	4.68	4.93								4C7
GLZ 5.1	A	4.81	5.07	20	1.5	5	20	20	1	800	5A1
	B	4.94	5.20								5B1
	C	5.09	5.37								5C1
GLZ 5.6	A	5.28	5.55	20	2.5	5	20	13	1	500	5A6
	B	5.45	5.73								5B6
	C	5.61	5.91								5C6
GLZ 6.2	A	5.78	6.09	20	3.0	5	20	10	1	300	6A2
	B	5.96	6.27								6B2
	C	6.12	6.44								6C2
GLZ 6.8	A	6.29	6.63	20	3.5	2	20	8	0.5	150	6A8
	B	6.49	6.83								6B8
	C	6.66	7.01								6C8
GLZ 7.5	A	6.85	7.22	20	4.0	0.5	20	8	0.5	120	7A5
	B	7.07	7.45								7B5
	C	7.29	7.67								7C5
GLZ 8.2	A	7.53	7.92	20	5.0	0.5	20	8	0.5	120	8A2
	B	7.78	8.19								8B2
	C	8.03	8.45								8C2
GLZ 9.1	A	8.29	8.73	20	6.0	0.5	20	8	0.5	120	9A1
	B	8.57	9.01								9B1
	C	8.83	9.30								9C1
GLZ 10	A	9.12	9.59	20	7.0	0.2	20	8	0.5	120	10A
	B	9.41	9.90								10B
	C	9.70	10.20								10C
	D	9.94	10.44								11D
GLZ 11	A	10.18	10.71	10	8.0	0.2	10	10	0.5	120	11A
	B	10.50	11.05								11B
	C	10.82	11.38								11C

Part Number	CLASS	Vz @ IZT		IZ (mA)	VR (V)	IR(μA) MAX	Izt (mA)	Zzt(Ω) MAX	Izk (mA)	Zzk(Ω) MAX	Marking Code
		Min. V	Max. V								
GLZ 12	A	11.13	11.71	10	9.0	0.2	10	12	0.5	110	12A
	B	11.44	12.03								12B
	C	11.74	12.35								12C
GLZ 13	A	12.11	12.75	10	10	0.2	10	14	0.5	110	13A
	B	12.55	13.21								13B
	C	12.99	13.66								13C
GLZ 15	A	13.44	14.13	10	11	0.2	10	16	0.5	110	15A
	B	13.89	14.62								15B
	C	14.35	15.09								15C
GLZ 16	A	14.80	15.57	10	12	0.2	10	18	0.5	150	16A
	B	15.25	16.04								16B
	C	15.69	16.51								16C
GLZ 18	A	16.22	17.06	10	13	0.2	10	23	0.5	150	18A
	B	16.82	17.70								18B
	C	17.42	18.33								18C
GLZ 20	A	18.02	18.96	10	15	0.2	10	28	0.5	200	20A
	B	18.63	19.59								20B
	C	19.23	20.22								20C
	D	19.72	20.72								20D
GLZ 22	A	20.15	21.20	5	17	0.2	5	30	0.5	200	22A
	B	20.64	21.71								22B
	C	21.08	22.17								22C
	D	21.52	22.63								22D
GLZ 24	A	22.05	23.18	5	19	0.2	5	35	0.5	200	24A
	B	22.61	23.77								24B
	C	23.12	24.31								24C
	D	23.63	24.85								24D
GLZ 27	A	24.26	25.52	5	21	0.2	5	45	0.5	250	27A
	B	24.97	26.26								27B
	C	25.63	26.95								27C
	D	26.29	27.64								27D
GLZ 30	A	26.99	28.39	5	23	0.2	5	55	0.5	250	30A
	B	27.70	29.13								30B
	C	28.36	29.82								30C
	D	29.02	30.51								30D
GLZ 33	A	29.68	31.22	5	25	0.2	5	65	0.5	250	33A
	B	30.32	31.88								33B
	C	30.90	32.50								33C
	D	31.49	33.11								33D
GLZ 36	A	32.14	33.79	5	27	0.2	5	75	0.5	250	36A
	B	32.79	34.49								36B
	C	33.40	35.13								36C
	D	34.01	35.77								36D
GLZ 39	A	34.68	36.47	5	30	0.2	5	85	0.5	250	39A
	B	35.36	37.19								39B
	C	36.00	37.85								39C
	D	36.63	38.52								39D
GLZ 43		40.00	45.00	5	33	0.2	5	90	--		43
GLZ 47		44.00	49.00	5	36	0.2	5	90	--		47
GLZ 51		48.00	54.00	5	39	0.2	5	110	--		51
GLZ 56		53.00	60.00	5	43	0.2	5	110	--		56

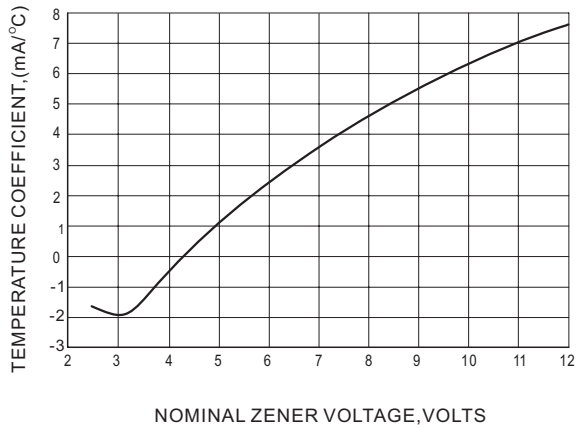


Fig.1 TEMPERATURE COEFFICIENTS

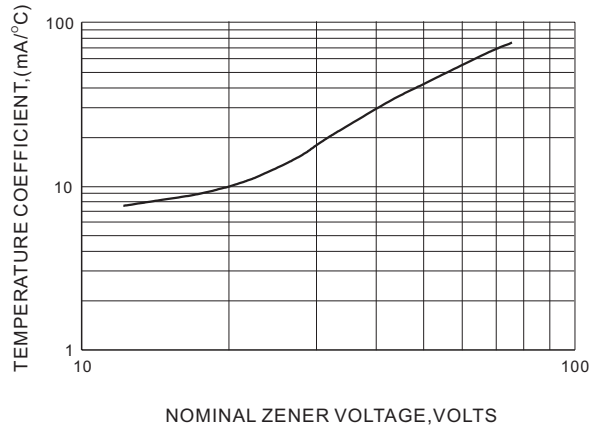


Fig.2 TEMPERATURE COEFFICIENTS

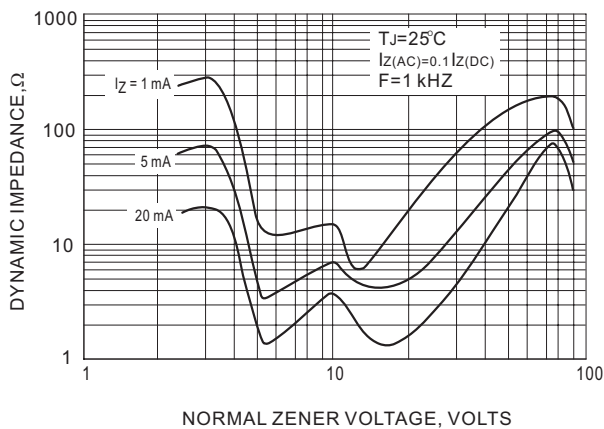


Fig.3 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

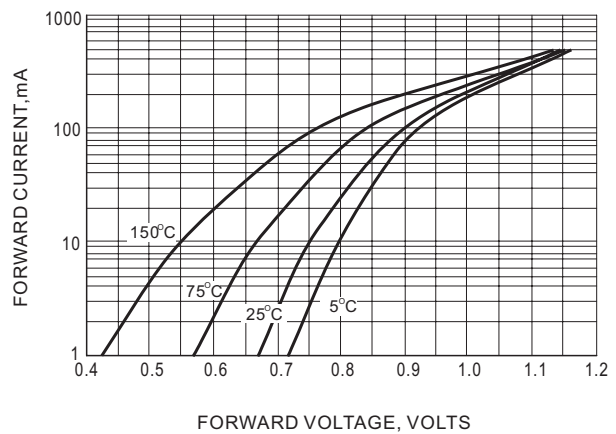


Fig.4 TYPICAL FORWARD VOLTAGE

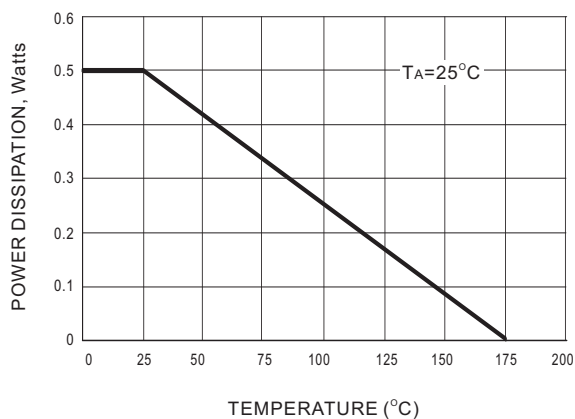


Fig.5 STEADY STATE POWER DERATING

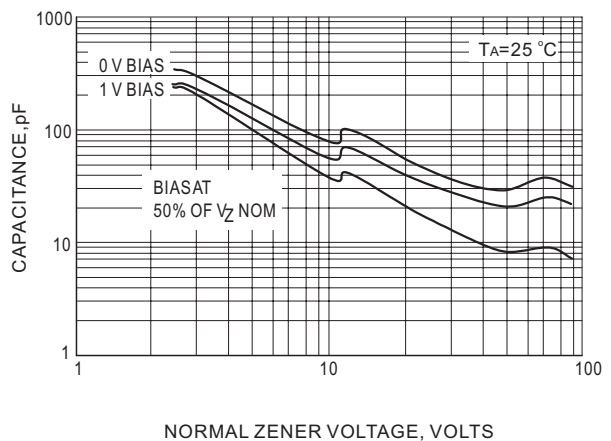


Fig.6 TYPICAL CAPACITANCE

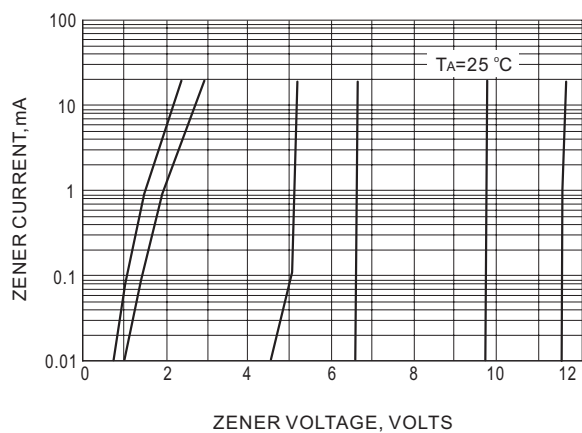


Fig.7 ZENER VOLTAGE VERSUS ZENER CURRENT

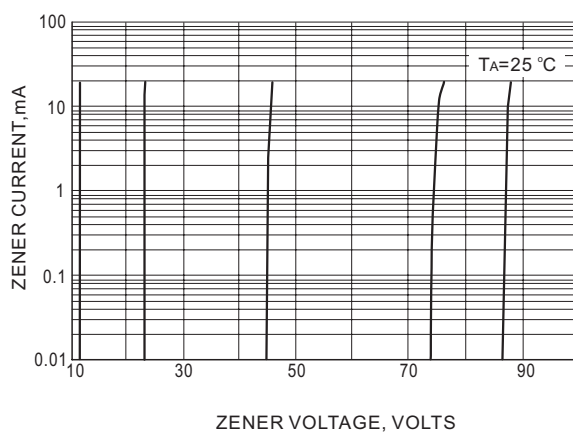


Fig.8 ZENER VOLTAGE VERSUS ZENER CURRENT

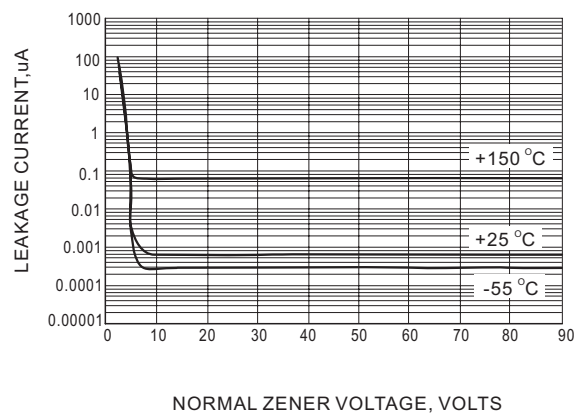


Fig.9 TYPICAL LEAKAGE CURRENT