

## GLZ2.0 SERIES

### SURFACE MOUNT ZENER DIODES

**VOLTAGE** 2.0 to 56 Volt

**POWER** 500 mWatt

**MINI-MELF / LL34**

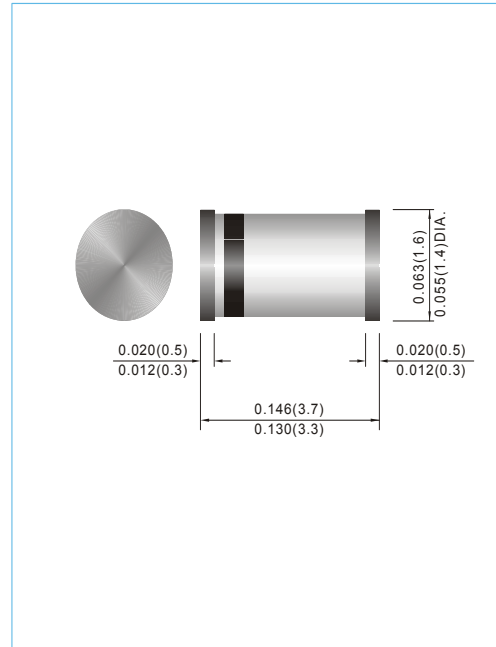
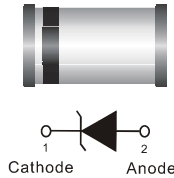
Unit : inch(mm)

#### FEATURES

- Planar Die construction
- 500mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS 2.0

#### MECHANICAL DATA

- Case: Molded Glass MINI-MELF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.001 ounces, 0.03 grams.
- Polarity : Color band denotes cathode end
- Packing information  
T/R - 2.5K per 7" plastic Reel  
T/R - 10K per 13" plastic Reel



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation at $T_A = 25^\circ\text{C}$	$P_{TOT}$	500	mW
Junction Temperature Range	$T_J$	-55 to + 175	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to + 175	$^\circ\text{C}$

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	$R_{\theta JA}$	--	--	0.3	$^\circ\text{C}/\text{mW}$
Forward Voltage at $I_F = 100\text{mA}$	$V_F$	--	--	1	V

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

## GLZ2.0 SERIES

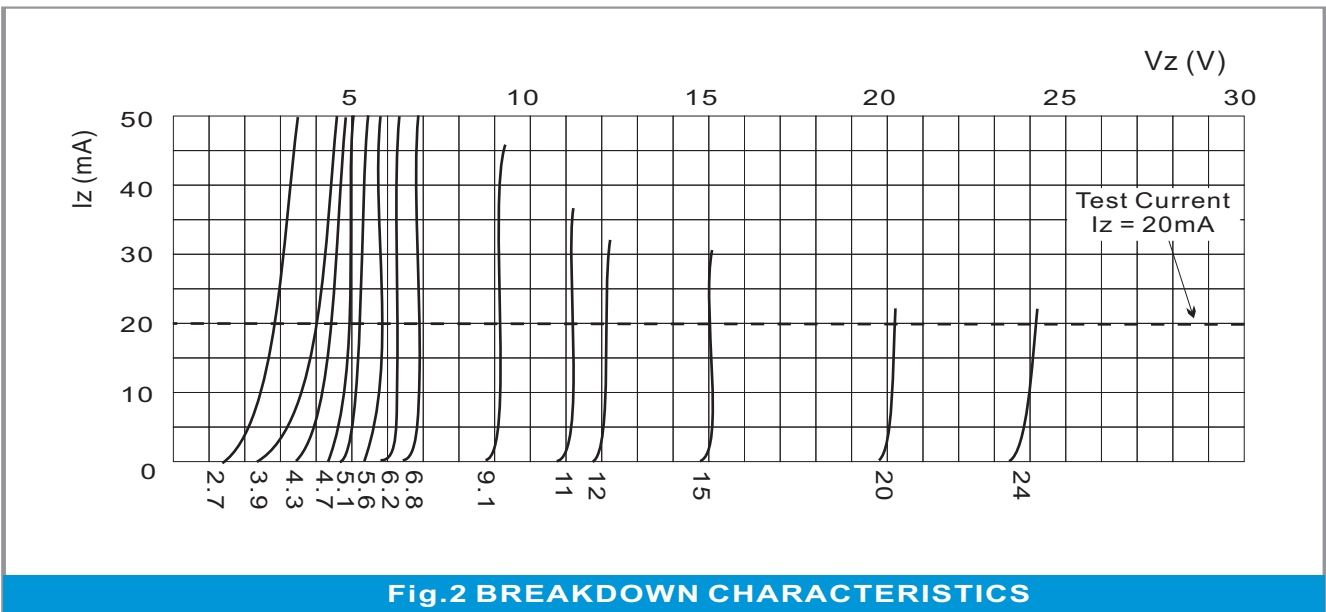
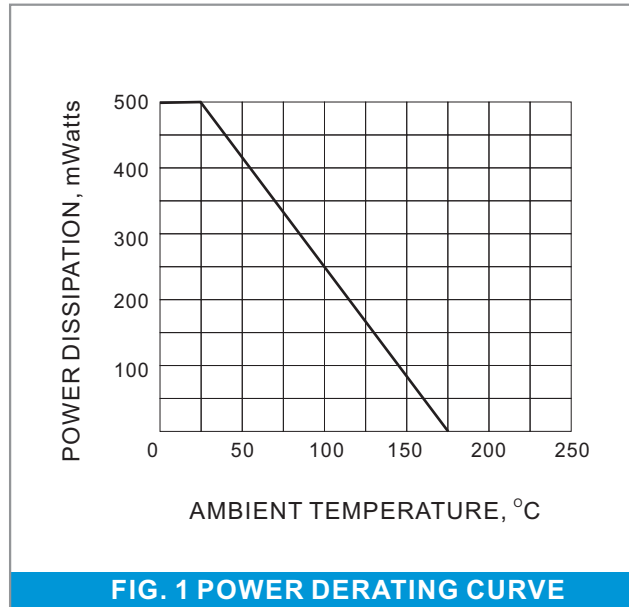
Part Number	Nominal Zener Voltage		Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	V <sub>Z</sub> @ I <sub>ZT</sub>		Z <sub>ZT</sub> @ I <sub>ZT</sub>		Z <sub>ZK</sub> @ I <sub>ZK</sub>		I <sub>R</sub> @ V <sub>R</sub>		
	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
500 mW Zener Diodes									
GLZ 2.0A	1.88	2.1	140	20	2000	1	120	0.5	2A0
GLZ 2.0B	2.02	2.2	140	20	2000	1	120	0.5	2B0
GLZ 2.2A	2.12	2.3	120	20	2000	1	120	0.7	2A2
GLZ 2.2B	2.22	2.41	120	20	2000	1	120	0.7	2B2
GLZ 2.4A	2.33	2.52	100	20	2000	1	120	1	2A4
GLZ 2.4B	2.43	2.63	100	20	2000	1	120	1	2B4
GLZ 2.7A	2.54	2.75	100	20	1000	1	120	1	2A7
GLZ 2.7B	2.69	2.91	100	20	1000	1	120	1	2B7
GLZ 3.0A	2.85	3.07	80	20	1000	1	50	1	3A0
GLZ 3.0B	3.01	3.22	80	20	1000	1	50	1	3B0
GLZ 3.3A	3.16	3.38	70	20	1000	1	20	1	3A3
GLZ 3.3B	3.32	3.53	70	20	1000	1	20	1	3B3
GLZ 3.6A	3.46	3.69	60	20	1000	1	10	1	3A6
GLZ 3.6B	3.6	3.84	60	20	1000	1	10	1	3B6
GLZ 3.9A	3.74	4.01	50	20	1000	1	5	1	3A9
GLZ 3.9B	3.89	4.16	50	20	1000	1	5	1	3B9
GLZ 4.3A	4.04	4.29	40	20	1000	1	5	1	4A3
GLZ 4.3B	4.17	4.43	40	20	1000	1	5	1	4B3
GLZ 4.3C	4.3	4.57	40	20	1000	1	5	1	4C3
GLZ 4.7A	4.44	4.68	25	20	900	1	5	1	4A7
GLZ 4.7B	4.55	4.80	25	20	900	1	5	1	4B7
GLZ 4.7C	4.68	4.93	25	20	900	1	5	1	4C7
GLZ 5.1A	4.81	5.07	20	20	800	1	5	1.5	5A1
GLZ 5.1B	4.94	5.2	20	20	800	1	5	1.5	5B1
GLZ 5.1C	5.09	5.37	20	20	800	1	5	1.5	5C1
GLZ 5.6A	5.28	5.55	13	20	500	1	5	2.5	5A6
GLZ 5.6B	5.45	5.73	13	20	500	1	5	2.5	5B6
GLZ 5.6C	5.61	5.91	13	20	500	1	5	2.5	5C6
GLZ 6.2A	5.78	6.09	10	20	300	1	5	3	6A2
GLZ 6.2B	5.96	6.27	10	20	300	1	5	3	6B2
GLZ 6.2C	6.12	6.44	10	20	300	1	5	3	6C2
GLZ 6.8A	6.29	6.63	8	20	150	0.5	2	3.5	6A8
GLZ 6.8B	6.49	6.83	8	20	150	0.5	2	3.5	6B8
GLZ 6.8C	6.66	7.01	8	20	150	0.5	2	3.5	6C8
GLZ 7.5A	6.85	7.22	8	20	120	0.5	0.5	4	7A5
GLZ 7.5B	7.07	7.45	8	20	120	0.5	0.5	4	7B5
GLZ 7.5C	7.29	7.67	8	20	120	0.5	0.5	4	7C5
GLZ 8.2A	7.53	7.92	8	20	120	0.5	0.5	5	8A2
GLZ 8.2B	7.78	8.19	8	20	120	0.5	0.5	5	8B2
GLZ 8.2C	8.03	8.45	8	20	120	0.5	0.5	5	8C2
GLZ 9.1A	8.29	8.73	8	20	120	0.5	0.5	6	9A1
GLZ 9.1B	8.57	9.01	8	20	120	0.5	0.5	6	9B1
GLZ 9.1C	8.83	9.3	8	20	120	0.5	0.5	6	9C1
GLZ 10A	9.12	9.59	8	20	120	0.5	0.2	7	10A
GLZ 10B	9.41	9.9	8	20	120	0.5	0.2	7	10B
GLZ 10C	9.7	10.2	8	20	120	0.5	0.2	7	10C
GLZ 10D	9.94	10.44	8	20	120	0.5	0.2	7	10D
GLZ 11A	10.18	10.71	10	10	120	0.5	0.2	8	11A
GLZ 11B	10.5	11.05	10	10	120	0.5	0.2	8	11B
GLZ 11C	10.82	11.38	10	10	120	0.5	0.2	8	11C

## GLZ2.0 SERIES

Part Number	Nominal Zener Voltage		Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	V <sub>Z</sub> @ I <sub>ZT</sub>		Z <sub>ZT</sub> @ I <sub>ZT</sub>		Z <sub>ZK</sub> @ I <sub>ZK</sub>		I <sub>R</sub> @ V <sub>R</sub>		
	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
500 mW Zener Diodes									
GLZ 12A	11.13	11.71	12	10	110	0.5	0.2	9	12A
GLZ 12B	11.44	12.03	12	10	110	0.5	0.2	9	12B
GLZ 12C	11.74	12.35	12	10	110	0.5	0.2	9	12C
GLZ 13A	12.11	12.75	14	10	110	0.5	0.2	10	13A
GLZ 13B	12.55	13.21	14	10	110	0.5	0.2	10	13B
GLZ 13C	12.99	13.66	14	10	110	0.5	0.2	10	13C
GLZ 15A	13.44	14.13	16	10	110	0.5	0.2	11	15A
GLZ 15B	13.89	14.62	16	10	110	0.5	0.2	11	15B
GLZ 15C	14.35	15.09	16	10	110	0.5	0.2	11	15C
GLZ 16A	14.8	15.57	18	10	150	0.5	0.2	12	16A
GLZ 16B	15.25	16.04	18	10	150	0.5	0.2	12	16B
GLZ 16C	15.69	16.51	18	10	150	0.5	0.2	12	16C
GLZ 18A	16.22	17.06	23	10	150	0.5	0.2	13	18A
GLZ 18B	16.82	17.7	23	10	150	0.5	0.2	13	18B
GLZ 18C	17.42	18.33	23	10	150	0.5	0.2	13	18C
GLZ 20A	18.02	18.96	28	10	200	0.5	0.2	15	20A
GLZ 20B	18.63	19.59	28	10	200	0.5	0.2	15	20B
GLZ 20C	19.23	20.22	28	10	200	0.5	0.2	15	20C
GLZ 20D	19.72	20.72	28	10	200	0.5	0.2	15	20D
GLZ 22A	20.15	21.2	30	5	200	0.5	0.2	17	22A
GLZ 22B	20.64	21.71	30	5	200	0.5	0.2	17	22B
GLZ 22C	21.08	22.17	30	5	200	0.5	0.2	17	22C
GLZ 22D	21.52	22.63	30	5	200	0.5	0.2	17	22D
GLZ 24A	22.05	23.18	35	5	200	0.5	0.2	19	24A
GLZ 24B	22.61	23.77	35	5	200	0.5	0.2	19	24B
GLZ 24C	23.12	24.31	35	5	200	0.5	0.2	19	24C
GLZ 24D	23.63	24.85	35	5	200	0.5	0.2	19	24D
GLZ 27A	24.26	25.52	45	5	250	0.5	0.2	21	27A
GLZ 27B	24.97	26.26	45	5	250	0.5	0.2	21	27B
GLZ 27C	25.63	26.95	45	5	250	0.5	0.2	21	27C
GLZ 27D	26.29	27.64	45	5	250	0.5	0.2	21	27D
GLZ 30A	26.99	28.39	55	5	250	0.5	0.2	23	30A
GLZ 30B	27.7	29.13	55	5	250	0.5	0.2	23	30B
GLZ 30C	28.36	29.82	55	5	250	0.5	0.2	23	30C
GLZ 30D	29.02	30.51	55	5	250	0.5	0.2	23	30D
GLZ 33A	29.68	31.22	65	5	250	0.5	0.2	25	33A
GLZ 33B	30.32	31.88	65	5	250	0.5	0.2	25	33B
GLZ 33C	30.9	32.5	65	5	250	0.5	0.2	25	33C
GLZ 33D	31.49	33.11	65	5	250	0.5	0.2	25	33D
GLZ 36A	32.14	33.79	75	5	250	0.5	0.2	27	36A
GLZ 36B	32.79	34.49	75	5	250	0.5	0.2	27	36B
GLZ 36C	33.4	35.13	75	5	250	0.5	0.2	27	36C
GLZ 36D	34.01	35.77	75	5	250	0.5	0.2	27	36D
GLZ 39A	34.68	36.47	85	5	250	0.5	0.2	30	39A
GLZ 39B	35.36	37.19	85	5	250	0.5	0.2	30	39B
GLZ 39C	36	37.85	85	5	250	0.5	0.2	30	39C
GLZ 39D	36.63	38.52	85	5	250	0.5	0.2	30	39D
GLZ 41	37	41	90	5	-	-	0.2	30	41
GLZ 43	40	45	90	5	-	-	0.2	33	43
GLZ 47	44	49	90	5	-	-	0.2	36	47
GLZ 51	48	54	110	5	-	-	0.2	39	51
GLZ 56	53	60	110	5	-	-	0.2	43	56

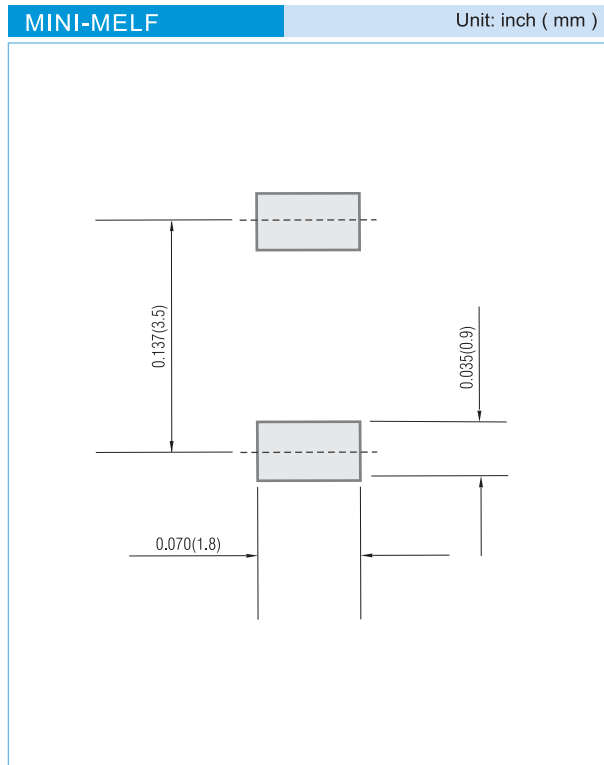
**GLZ2.0 SERIES**

**RATING AND CHARACTERISTIC CURVES**



## GLZ2.0 SERIES

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information
  - T/R - 10K per 13" plastic Reel
  - T/R - 2.5K per 7" plastic Reel

## GLZ2.0 SERIES

### Part No\_packing code\_Version

GLZ2.0A\_R1\_10001

GLZ2.0A\_R2\_10001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	HF	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	RoHS	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			

## GLZ2.0 SERIES

### Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.