

GMZ2.0~GMZ56

SURFACE MOUNT ZENER DIODES

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

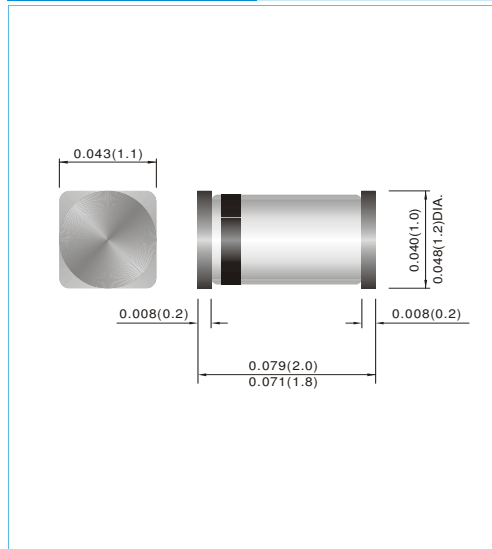
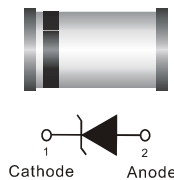
MICRO-MELF Unit : inch(mm)

FEATURES

- Planar Die construction
- 500mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- Lead free in comply with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: Molded Glass MICRO-MELF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.01 grams.
- Mounting Position: Any
- Polarity : Color band denotes cathode end
- Packing information
T/R - 2.5K per 7" plastic Reel



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation at $T_A = 25^\circ\text{C}$	P_{TOT}	500	mW
Operating Junction Temperature Range	T_J	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.

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Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current	
	V _Z @ I _{ZT}			Z _{ZT} @ I _{ZT}		Z _{ZK} @ I _{ZK}		I _R @ V _R	
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V
500 mW Zener Diodes									
GMZ 2.0A	2	1.88	2.1	140	20	2000	1	120	0.5
GMZ 2.0B	2	2.02	2.2	140	20	2000	1	120	0.5
GMZ 2.2A	2.2	2.12	2.3	120	20	2000	1	120	0.7
GMZ 2.2B	2.2	2.22	2.41	120	20	2000	1	120	0.7
GMZ 2.4A	2.4	2.33	2.52	100	20	2000	1	120	1
GMZ 2.4B	2.4	2.43	2.63	100	20	2000	1	120	1
GMZ 2.7A	2.7	2.54	2.75	100	20	1000	1	120	1
GMZ 2.7B	2.7	2.69	2.91	80	20	1000	1	120	1
GMZ 3.0A	3	2.85	3.07	80	20	1000	1	50	1
GMZ 3.0B	3	3.01	3.22	70	20	1000	1	50	1
GMZ 3.3A	3.3	3.16	3.38	70	20	1000	1	20	1
GMZ 3.3B	3.3	3.32	3.53	60	20	1000	1	20	1
GMZ 3.6A	3.6	3.46	3.69	60	20	1000	1	10	1
GMZ 3.6B	3.6	3.6	3.84	50	20	1000	1	10	1
GMZ 3.9A	3.9	3.74	4.01	50	20	1000	1	5	1
GMZ 3.9B	3.9	3.89	4.16	40	20	1000	1	5	1
GMZ 4.3A	4.3	4.04	4.29	40	20	1000	1	5	1
GMZ 4.3B	4.3	4.17	4.43	40	20	1000	1	5	1
GMZ 4.3C	4.3	4.3	4.57	25	20	1000	1	5	1
GMZ 4.7A	4.7	4.44	4.68	25	20	900	1	5	1
GMZ 4.7B	4.7	4.55	4.8	25	20	900	1	5	1
GMZ 4.7C	4.7	4.68	4.93	20	20	900	1	5	1
GMZ 5.1A	5.1	4.81	5.07	20	20	800	1	5	1.5
GMZ 5.1B	5.1	4.94	5.2	20	20	800	1	5	1.5
GMZ 5.1C	5.1	5.09	5.37	20	20	800	1	5	1.5
GMZ 5.6A	5.6	5.28	5.55	13	20	500	1	5	2.5
GMZ 5.6B	5.6	5.45	5.73	13	20	500	1	5	2.5
GMZ 5.6C	5.6	5.61	5.91	13	20	500	1	5	2.5
GMZ 6.2A	6.2	5.78	6.09	10	20	300	1	5	3
GMZ 6.2B	6.2	5.96	6.27	10	20	300	1	5	3
GMZ 6.2C	6.2	6.12	6.44	10	20	300	1	5	3
GMZ 6.8A	6.8	6.29	6.63	8	20	150	0.5	2	3.5
GMZ 6.8B	6.8	6.49	6.83	8	20	150	0.5	2	3.5
GMZ 6.8C	6.8	6.66	7.01	8	20	150	0.5	2	3.5
GMZ 7.5A	7.5	6.85	7.22	8	20	120	0.5	0.5	4
GMZ 7.5B	7.5	7.07	7.45	8	20	120	0.5	0.5	4
GMZ 7.5C	7.5	7.29	7.67	8	20	120	0.5	0.5	4
GMZ 8.2A	8.2	7.53	7.92	8	20	120	0.5	0.5	5
GMZ 8.2B	8.2	7.78	8.19	8	20	120	0.5	0.5	5
GMZ 8.2C	8.2	8.03	8.45	8	20	120	0.5	0.5	5
GMZ 9.1A	9.1	8.29	8.73	8	20	120	0.5	0.5	6
GMZ 9.1B	9.1	8.57	9.01	8	20	120	0.5	0.5	6
GMZ 9.1C	9.1	8.83	9.3	8	20	120	0.5	0.5	6
GMZ 10A	10	9.12	9.59	8	20	120	0.5	0.2	7
GMZ 10B	10	9.41	9.9	8	20	120	0.5	0.2	7
GMZ 10C	10	9.7	10.2	8	20	120	0.5	0.2	7
GMZ 10D	10	9.94	10.44	8	20	120	0.5	0.2	7
GMZ 11A	11	10.18	10.71	10	10	120	0.5	0.2	8
GMZ 11B	11	10.5	11.05	10	10	120	0.5	0.2	8
GMZ 11C	11	10.82	11.38	10	10	120	0.5	0.2	8

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

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RATING AND CHARACTERISTIC CURVES

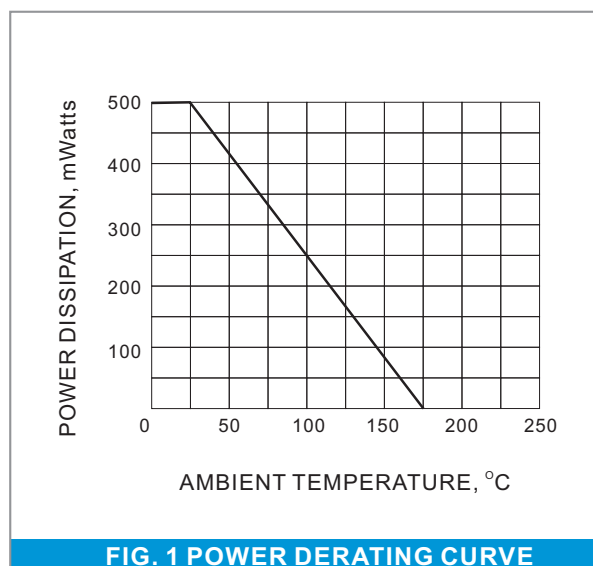


FIG. 1 POWER DERATING CURVE

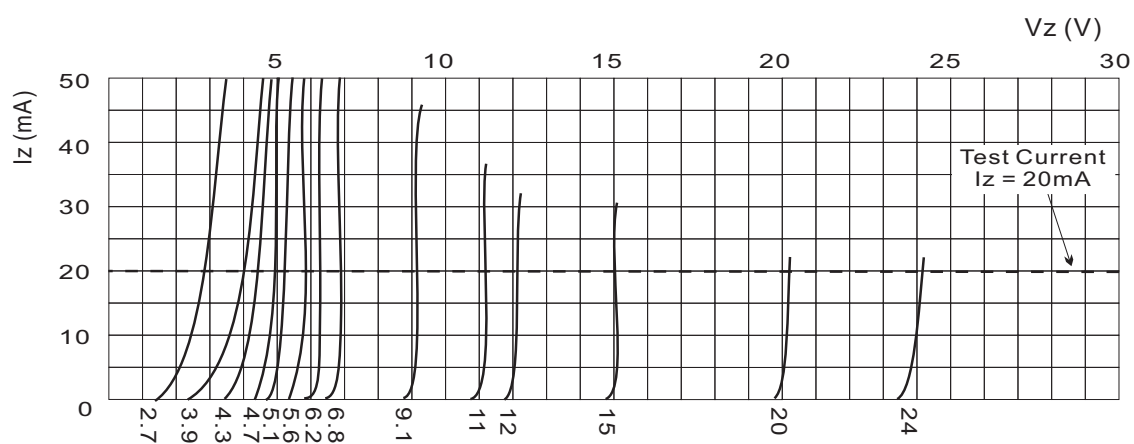


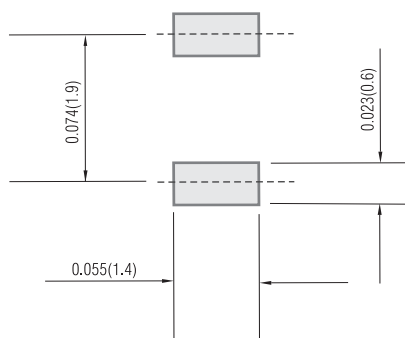
Fig.2 BREAKDOWN CHARACTERISTICS

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MOUNTING PAD LAYOUT

MICRO-MELF

Unit: inch (mm)



ORDER INFORMATION

- Packing information

T/R - 10K per 13" plastic Reel

T/R - 2.5K per 7" plastic Reel

LEGAL STATEMENT

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For example :

RB500V-40_R2_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
T/B	A	N/A	0	HF	0	serial number
T/R	R	7"	1	RoHS	1	serial number
B/P	B	13"	2			
T/P	T	26mm	X			
TRR	S	52mm	Y			
TRL	L	PBCU	U			
FORMING	F	PBCD	D			

Part No_packing code_Version

GMZ2.0A_R1_10001

GMZ2.0A_R2_10001