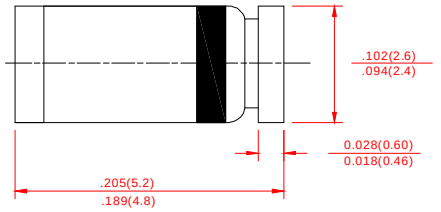
SURFACE MOUNT GLASS PASSIVATED ZENER DIODE

MZ1.0GM3V9-100 THRU MZ100-5

Zener Voltage 3.9 to 100 Volts
Standy State Power 1.0 Watt

GLASS MELE



Dimensions in inches and (millimeters)

FEATURES

- Silicon Planar Power Zener Diodes
- For use in stabilizing and clipping circuits with higher Power rating
- The Zener voltages are graded according to the International E24 standard. Smaller voltage tolerances anc other Zener voltages are available upon request.

MECHNICAL DATA

- Case: MELF Glass Case
- Weight: approx.0.25g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25℃ ambient temperature unless otherwise specified

	Symbol	Value	Unit
Zener Current (see Tamb "Characteristics")			
Power Dissipation at Tamb=75℃	P_{tot}	1.0(1)	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_s	-55 to ~+150	℃

Characteristics at Tamb=25℃

	Symbol	Min	Typ	Max	Unit
Thermal resistance Junction to Ambient Air	R_{thJA}	-	-	170(1)	℃/W

Notes

1. Valid provided that electrodes are kept at ambient temperature.

.

SURFACE MOUNT GLASS PASSIVATED ZENER DIODE

MZ1.0GM3V9-100 THRU MZ100-5

Zener Voltage 3.9 to 100 Volts
Standy State Power 1.0 Watt

ELECTRICAL CHARACTERISTIC

Ratings at 25℃ ambient temperature unless otherwise specified

Type	Device Marking Code	Zener Valtage(2) at IZT min.max. VZ(V)	Dynamic resistance at LZT f=1kHz max rzj(Ω)	Temp.coeff. of Zener volt at LZT α vz(10^{-4}/K)	Test current lZT(mA)	Reverse voltage at IR=0.5μA VR(V)	Admissible Zener current(1) at Tamb=25℃ Iz(mA)
MZ1.0GM3V9	3V9-100	3.7…4.1	4(<7)	-7…+2	100	-	203
MZ1.0GM4V3	4V3-100	4.0…4.6	4(<7)	-7…+3	100	-	182
MZ1.0GM4V7	4V7-100	4.4…5.0	4(<7)	-7…+4	100	-	165
MZ1.0GM5V1	5V1-100	4.8…5.4	2(<5)	-6…+5	100	>0.7	150
MZ1.0GM5V6	5V6-100	5.2…6.0	1(<2)	-3…+5	100	>1.5	135
MZ1.0GM6V2	6V2-100	5.8…6.6	1(<2)	-1…+6	100	>2.0	128
MZ1.0GM6V8	6V8-100	6.4…7.2	1(<2)	0…+7	100	>3.0	110
MZ1.0GM7V5	7V5-100	7.0…7.9	1(<2)	0…+7	100	>5.0	100
MZ1.0GM8V2	8V2-100	7.7…8.7	1(<2)	+3…+8	100	>6.0	89
MZ1.0GM9V1	9V1-50	8.5…9.6	2(<4)	+3…+8	50	>7.0	82
MZ1.0GM10V	10V-50	9.4…10.6	2(<4)	+5…+9	50	>7.5	74
MZ1.0GM11V	11V-50	10.4…11.6	3(<7)	+5…+10	50	>8.5	66
MZ1.0GM12V	12V-50	11.4…12.7	3(<7)	+5…+10	50	>9.0	60
MZ1.0GM13V	13V-50	12.4…14.1	4(<9)	+5…+10	50	>10	55
MZ1.0GM15V	15V-50	13.8…15.8	4(<9)	+5…+10	50	>11	49
MZ1.0GM 16V	16V-25	15.3…17.1	5(<10)	+5…+11	25	>12	44
MZ1.0GM18V	18V-25	16.8…19.1	5(<11)	+7…+11	25	>14	40
MZ1.0GM20V	20V-25	18.8…21.2	6(<12)	+7…+11	25	>15	36
MZ1.0GM22V	22V-25	20.8…23.3	7(<13)	+7…+11	25	>17	34
MZ1.0GM24V	24V-25	22.8…25.6	8(<14)	+7…+12	25	>18	29
MZ1.0GM27V	27V-25	25.1…28.9	9(<15)	+7…+12	25	>20	27
MZ1.0GM30V	30V-25	28…32	10(<20)	+7…+12	25	>22.5	25
MZ1.0GM33V	33V-25	31…35	11(<20)	+7…+12	25	>25	22
MZ1.0GM36V	36V-10	34…38	25(<60)	+7…+12	10	>27	20
MZ1.0GM39V	39V-10	37…41	30(<60)	+8…+12	10	>29	18
MZ1.0GM43V	43V-10	40…46	35(<80)	+8…+13	10	>32	17
MZ1.0GM47V	47V-10	44…50	40(<80)	+8…+13	10	>35	15
MZ1.0GM51V	51V-10	48…54	45(<100)	+8…+13	10	>38	14
MZ1.0GM56V	56V-10	52…60	50(<100)	+8…+13	10	>42	13
MZ1.0GM62V	62V-10	58…66	60(<130)	+8…+13	10	>47	11
MZ1.0GM68V	68V-10	64…72	65(<130)	+8…+13	10	>51	10
MZ1.0GM75V	75V-10	70…79	70(<160)	+8…+13	10	>56	9
MZ1.0GM85V	82V-10	77…88	80(<160)	+8…+13	10	>61	8
MZ1.0GM91V	91V-5	85…96	120(<250)	+9…+13	5	>68	7.5
MZ1.0GM100V	100V-5	94…106	130(<250)	+9…+13	5	>75	7

Notes:

(1) Valid provided that electrodes are kept at ambient temperature

(2) Tested with pulses tp=5ms

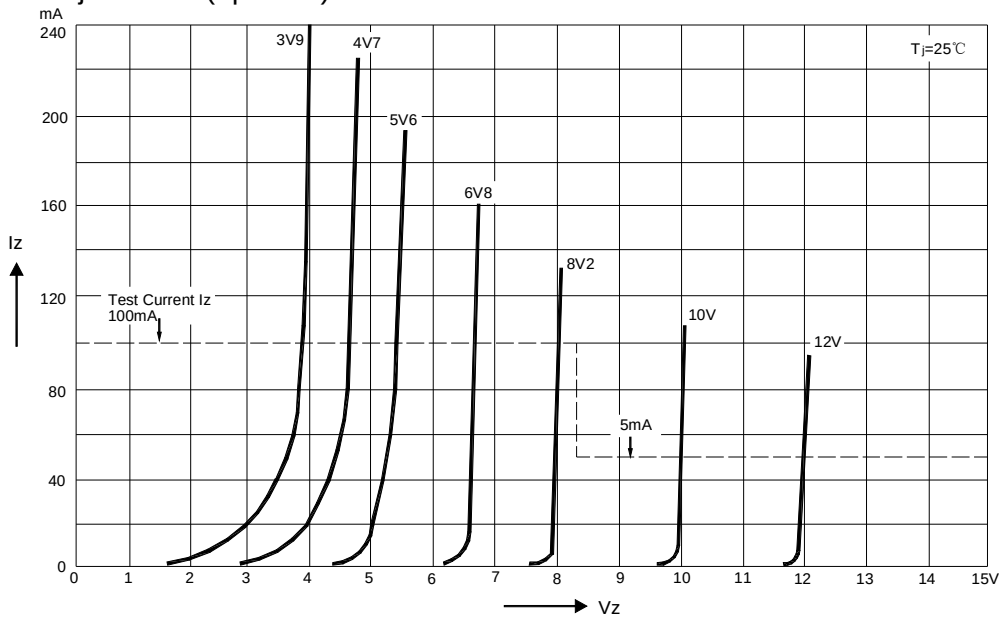
SURFACE MOUNT GLASS PASSIVATED ZENER DIODE

MZ1.0GM3V9-100 THRU MZ100-5

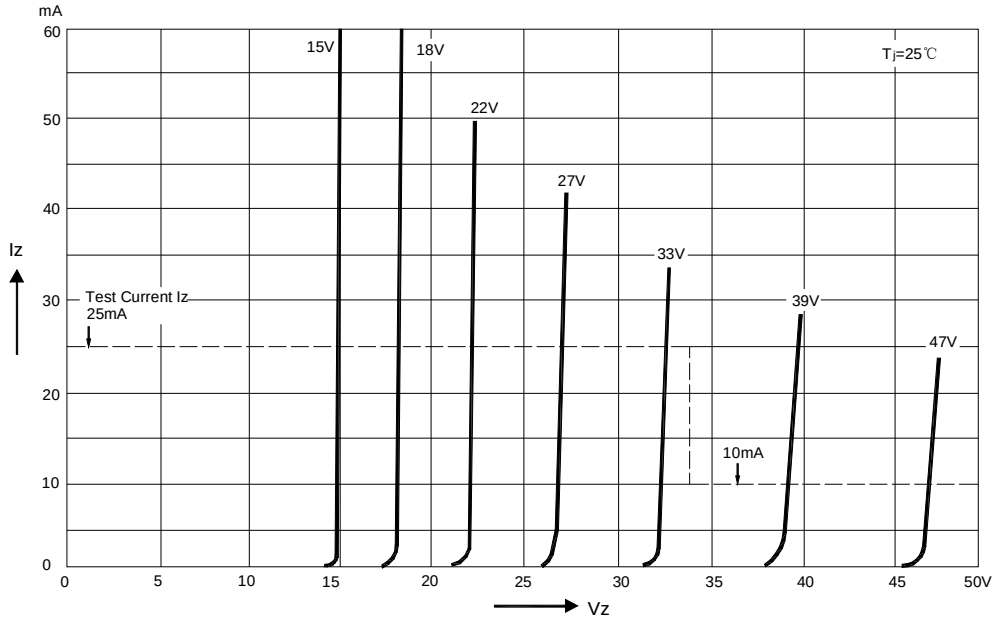
Zener Voltage	**3.9 to 100 Volts**
Standy State Power	**1.0 Watt**

RATING AND CHARACTERISTIC CURVES MZ1.0GM3V9-100 THRU MZ1.0GM100-5

Breakdown characteristics
Tj=constant(pulsed)



Breakdown characteristics
Tj=constant(pulsed)



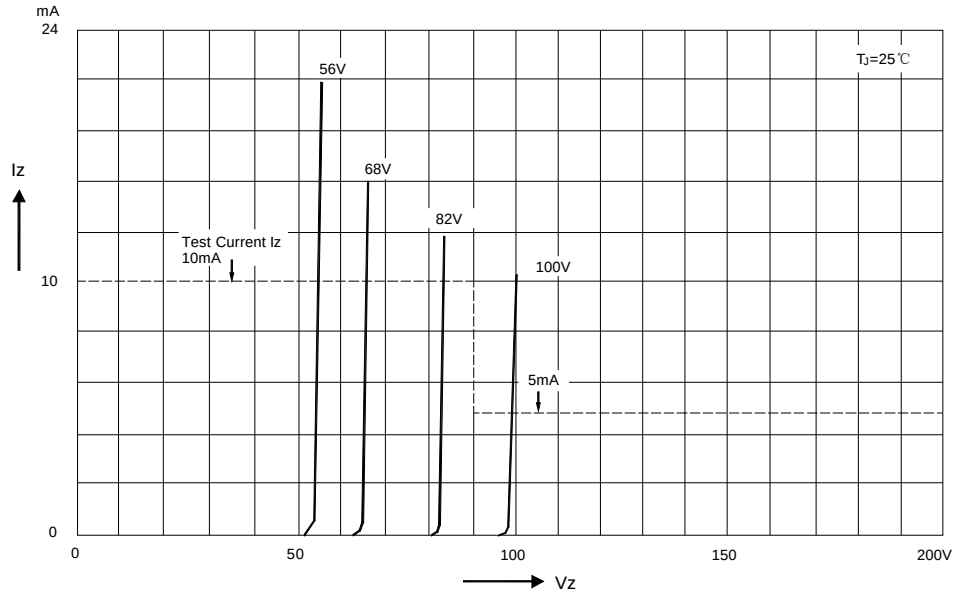
SURFACE MOUNT GLASS PASSIVATED ZENER DIODE

MZ1.0GM3V9-100 THRU MZ100-5

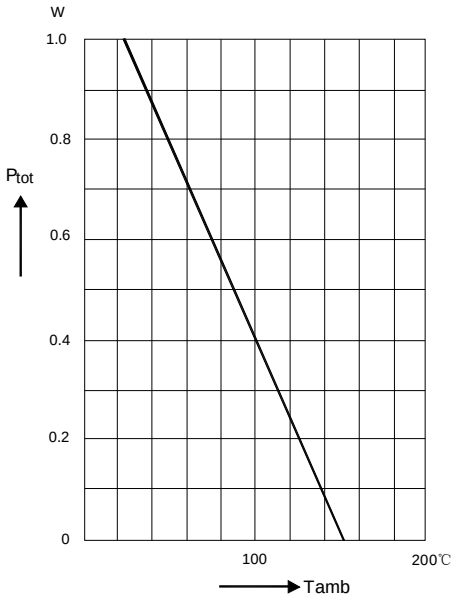
Zener Voltage	**3.9 to 100 Volts**
Standy State Power	**1.0 Watt**

RATING AND CHARACTERISTIC CURVES MZ1.0GM3V9-100 THRU MZ1.0GM100-5

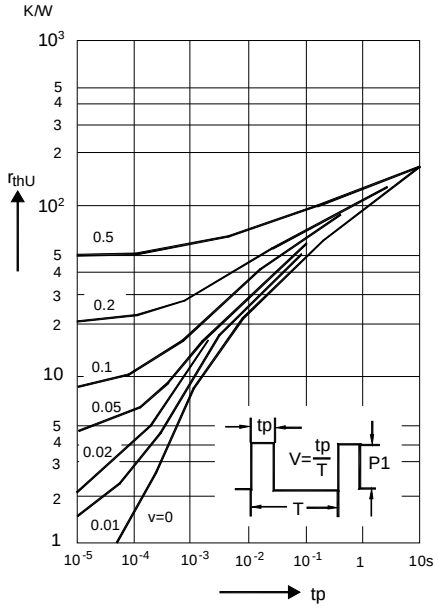
Breakdown characteristics
Tj=constant(pulsed)



Admissible power dissipation
versus ambient temperature
Vaild provided that electrodes
are kept at amblent temperature



Pulse thermal resistance
versus pulse duration
Vaild provided that electrodes
are kept at amblent temperature



SURFACE MOUNT GLASS PASSIVATED ZENER DIODE

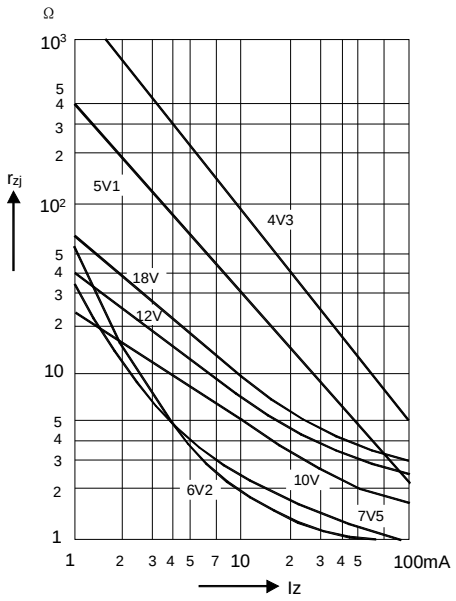
MZ0.5GN SERIES

MZ0.5GE2V0-20 THRU MZ0.5GE75V-1.7

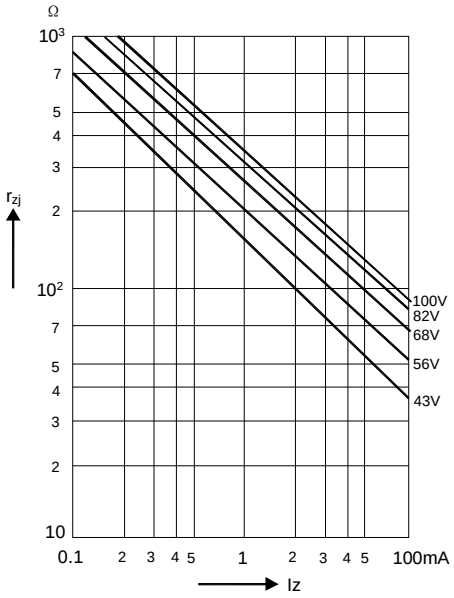
MZ0.5GE2V THRU MZ0.5GE75V

RATING AND CHARACTERISTIC CURVES MZ1.0GM3V9-100 THRU MZ1.0GM100-5

Dynamic resistance
versus Zener current



Dynamic resistance
versus Zener current



Dynamic resistance
versus Zener current