

# ZMM55C(A)(B)(D)2V4 THRU ZMM55C(A)(B)(D)47

## SURFACE MOUNT ZENER DIODES

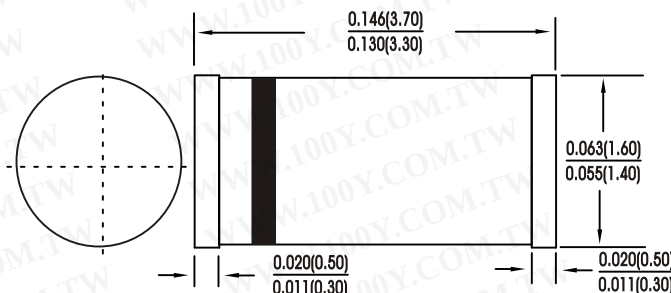
### FEATURES:

- Standard Zener voltage tolerance is  $\pm 5\%$  AND  
SUFFIX "ZMM55A" FOR  $\pm 1\%$   
SUFFIX "ZMM55B" FOR  $\pm 2\%$   
SUFFIX "ZMM55C" FOR  $\pm 5\%$   
SUFFIX "ZMM55D" FOR  $\pm 20\%$
- These diodes are also available in QUADRO MELF case with the type designation ZMM55C(A)(B)(D)2V4..... ZMM55C(A)(B)(D)47

### MECHANICAL DATA

Case: MINI MELF Molded Glass

勝特力材料 886-3-5753170  
勝特力电子(上海) 86-21-54151736  
勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25° C ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

| Characteristic                                                          | Symbol             | Value                          | Units |
|-------------------------------------------------------------------------|--------------------|--------------------------------|-------|
| Power Dissipation at Tamb=25 °C                                         | P <sub>tot</sub>   | 0.5 <sup>1)</sup>              | W     |
| Z-current                                                               | I <sub>Z</sub>     | P <sub>V</sub> /V <sub>Z</sub> | mA    |
| Thermal Resistance Junction to Ambient Air                              | R <sub>thJ-A</sub> | 0.3 <sup>1)</sup>              | K/mW  |
| Maximum instantaneous forward voltage drop<br>IF=10 mADC<br>IF=200 mADC | V <sub>F</sub>     | 0.9<br>1.5                     | Volts |
| Junction temperature                                                    | T <sub>J</sub>     | 175                            | °C    |
| Storage temperature range                                               | T <sub>stg</sub>   | -55 to +175                    | °C    |

1) Valid provided that leads are kept at ambient temperature at a distance of 8mm from case

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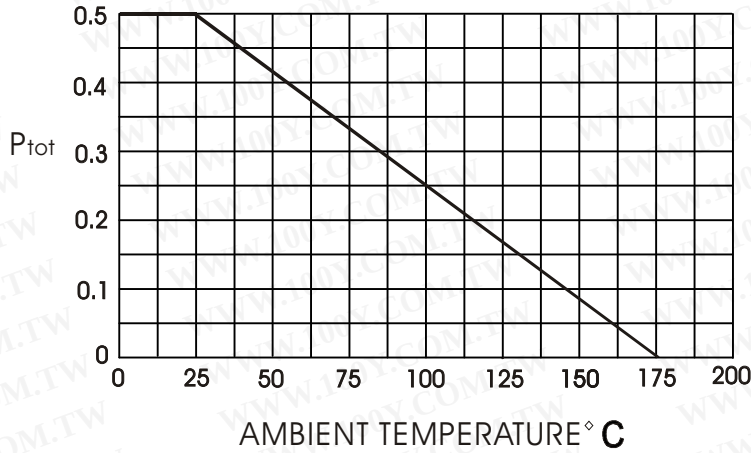
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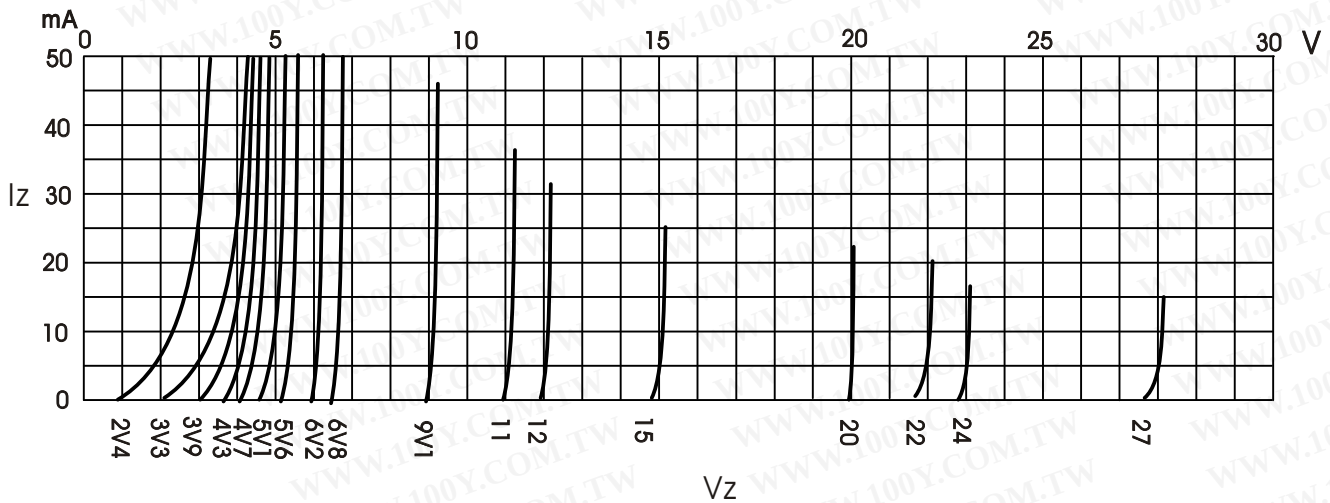
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CHANGE IN THE POWER DISSIPATION DUE  
W TO THE AMBIENT TEMPERATURE



BREAKDOWN CHARACTERISTICS



# ZENER DIODES ZMM55C(A)(B)(D)2V4 THRU ZMM55C(A)(B)(D)47

| Device Type | Nominal Zener Voltage Vz at IzT | Test Current IzT | Maximum Zener Impedance |            |     | Maximum Reverse Leakage Current |                       | Typical Temperature coefficient | Maximum Regulator Current IzM |
|-------------|---------------------------------|------------------|-------------------------|------------|-----|---------------------------------|-----------------------|---------------------------------|-------------------------------|
|             |                                 |                  | ZzT at IzT              | ZzK at IzK | IzK | IR                              | Test Voltage Suffix B |                                 |                               |
|             | Volts                           | mA               | $\Omega$                | $\Omega$   | mA  | $\mu A$                         | Volts                 | %/°C                            | mA                            |
| ZMM55C2V4   | 2.28-2.56                       | 5                | 85                      | 600        | 1.0 | 50                              | 1.0                   | -0.070                          | 150                           |
| ZMM55C2V7   | 2.5-2.9                         | 5                | 85                      | 600        | 1.0 | 10                              | 1.0                   | -0.070                          | 135                           |
| ZMM55C3V0   | 2.8-3.2                         | 5                | 85                      | 600        | 1.0 | 4                               | 1.0                   | -0.070                          | 125                           |
| ZMM55C3V3   | 3.1-3.5                         | 5                | 85                      | 600        | 1.0 | 2                               | 1.0                   | -0.065                          | 115                           |
| ZMM55C3V6   | 3.4-3.8                         | 5                | 85                      | 600        | 1.0 | 2                               | 1.0                   | -0.060                          | 105                           |
| ZMM55C3V9   | 3.7-4.1                         | 5                | 85                      | 600        | 1.0 | 2                               | 1.0                   | -0.050                          | 95                            |
| ZMM55C4V3   | 4.0-4.6                         | 5                | 75                      | 600        | 1.0 | 1                               | 1.0                   | -0.025                          | 90                            |
| ZMM55C4V7   | 4.4-5.0                         | 5                | 60                      | 600        | 1.0 | 0.5                             | 1.0                   | -0.010                          | 85                            |
| ZMM55C5V1   | 4.8-5.4                         | 5                | 35                      | 550        | 1.0 | 0.1                             | 1.0                   | -0.015                          | 80                            |
| ZMM55C5V6   | 5.2-6.0                         | 5                | 25                      | 450        | 1.0 | 0.1                             | 1.0                   | -0.025                          | 70                            |
| ZMM55C6V2   | 5.8-6.6                         | 5                | 10                      | 200        | 1.0 | 0.1                             | 2.0                   | +0.035                          | 64                            |
| ZMM55C6V8   | 6.4-7.2                         | 5                | 8                       | 150        | 1.0 | 0.1                             | 3.0                   | +0.045                          | 58                            |
| ZMM55C7V5   | 7.0-7.9                         | 5                | 7                       | 50         | 1.0 | 0.1                             | 5.0                   | +0.050                          | 53                            |
| ZMM55C8V2   | 7.7-8.7                         | 5                | 7                       | 50         | 1.0 | 0.1                             | 6.0                   | +0.050                          | 47                            |
| ZMM55C9V1   | 8.5-9.6                         | 5                | 10                      | 50         | 1.0 | 0.1                             | 7.0                   | +0.060                          | 43                            |
| ZMM55C10    | 9.4-10.6                        | 5                | 15                      | 70         | 1.0 | 0.1                             | 7.5                   | +0.070                          | 40                            |
| ZMM55C11    | 10.4-11.6                       | 5                | 20                      | 70         | 1.0 | 0.1                             | 8.5                   | +0.070                          | 36                            |
| ZMM55C12    | 11.4-12.7                       | 5                | 20                      | 90         | 1.0 | 0.1                             | 9.0                   | +0.070                          | 32                            |
| ZMM55C13    | 12.4-14.1                       | 5                | 26                      | 110        | 1.0 | 0.1                             | 10                    | +0.070                          | 29                            |
| ZMM55C15    | 13.8-15.6                       | 5                | 30                      | 110        | 1.0 | 0.1                             | 11                    | +0.070                          | 27                            |
| ZMM55C16    | 15.3-17.1                       | 5                | 40                      | 170        | 1.0 | 0.1                             | 12                    | +0.070                          | 24                            |
| ZMM55C18    | 16.8-19.1                       | 5                | 50                      | 170        | 1.0 | 0.1                             | 14                    | +0.070                          | 21                            |
| ZMM55C20    | 18.8-21.2                       | 5                | 55                      | 220        | 1.0 | 0.1                             | 15                    | +0.070                          | 20                            |
| ZMM55C22    | 20.8-23.3                       | 5                | 55                      | 220        | 1.0 | 0.1                             | 17                    | +0.070                          | 18                            |
| ZMM55C24    | 22.8-25.6                       | 5                | 80                      | 220        | 1.0 | 0.1                             | 18                    | +0.080                          | 16                            |
| ZMM55C27    | 25.1-28.9                       | 5                | 80                      | 220        | 1.0 | 0.1                             | 20                    | +0.080                          | 14                            |
| ZMM55C30    | 28-32                           | 5                | 80                      | 220        | 1.0 | 0.1                             | 22                    | +0.080                          | 13                            |
| ZMM55C33    | 31-35                           | 5                | 80                      | 220        | 1.0 | 0.1                             | 24                    | +0.080                          | 12                            |
| ZMM55C36    | 34-38                           | 5                | 80                      | 220        | 1.0 | 0.1                             | 27                    | +0.080                          | 11                            |
| ZMM55C39    | 37-41                           | 2.5              | 90                      | 500        | 1.0 | 0.1                             | 30                    | +0.080                          | 10                            |
| ZMM55C43    | 40-46                           | 2.5              | 90                      | 600        | 1.0 | 0.1                             | 33                    | +0.080                          | 9.2                           |
| ZMM55C47    | 44-50                           | 2.5              | 110                     | 700        | 1.0 | 0.1                             | 36                    | +0.080                          | 8.5                           |

1) STANDARD VOLTAGE TOLERANCE IS  $\pm 5\%$  AND  
 SUFFIX "ZMM55A" FOR  $\pm 1\%$   
 SUFFIX "ZMM55B"X FOR  $\pm 2\%$   
 SUFFIX "ZMM55C" FOR  $\pm 5\%$   
 SUFFIX "ZMM55D" FOR  $\pm 20\%$

1.STANDARS ZENER DIODE 500mW  
 Vz TOLERANCE= $\pm 5\%$

2.ZMM=ZENER MINI MELF

3.Vz of zener diode, V code is instead of decimal point. E.g., 3V6=3.6V

4.MEASURED WITH PULSES Tp=20mSec.

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