

***SURFACE MOUNT ZENER SILICON RECTIFIER***  
***VOLTAGE RANGE - 6.2 TO 91.0 Volts Steady State Power- 1.0 Watt***

**FEATURES**

- \* Plastic package has underwriters laboratory
- \* Excellent clamping capability
- \* Low zener impedance
- \* Low regulation factor

**MECHANICAL DATA**

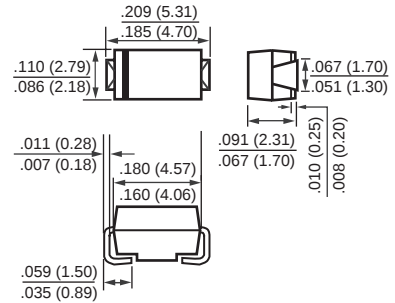
- \* Epoxy : Device has UL flammability classification 94V-0

Ratings at 25 °C ambient temperature unless otherwise specified.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.

**SMX**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICE**

**MAXIMUM RATINGS** (At TA = 25°C unless otherwise noted)

| TYPE    | NOMINAL<br>ZENER<br>VOLTAGE<br>at I <sub>ZT</sub><br>V <sub>Z</sub><br>(NOTE 1)<br>(Volts) | TEST<br>CURRENT<br>I <sub>ZT</sub><br>(mA) | MAXIMUM DYNAMIC<br>IMPEDANCE                    |                              |                                     | MAXIMUM DC REVERSE<br>LEAKAGE CURRENT |                           | MAXIMUM<br>SURGE<br>CURRENT<br>(NOTE 2)<br>I <sub>RM</sub><br>(mApk) | MAXIMUM<br>FORWARD<br>VOLTAGE<br>at 200mA<br>V <sub>F</sub><br>(Volts) |
|---------|--------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------|------------------------------|-------------------------------------|---------------------------------------|---------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------|
|         |                                                                                            |                                            | Z <sub>zT</sub> at<br>I <sub>ZT</sub><br>(Ohms) | Z <sub>zK</sub> at<br>(Ohms) | (NOTE 1)<br>I <sub>ZK</sub><br>(mA) | I <sub>R</sub><br>(uA)                | V <sub>R</sub><br>(Volts) |                                                                      |                                                                        |
| FM4735W | 6.2                                                                                        | 41.0                                       | 2.0                                             | 700                          | 1.0                                 | 50.0                                  | 3.0                       | 730.0                                                                | 1.2                                                                    |
| FM4736W | 6.8                                                                                        | 37.0                                       | 3.5                                             | 700                          | 1.0                                 | 10.0                                  | 4.0                       | 660.0                                                                | 1.2                                                                    |
| FM4737W | 7.5                                                                                        | 34.0                                       | 4.0                                             | 700                          | 0.5                                 | 10.0                                  | 5.0                       | 605.0                                                                | 1.2                                                                    |
| FM4738W | 8.2                                                                                        | 31.0                                       | 4.5                                             | 700                          | 0.5                                 | 10.0                                  | 6.0                       | 550.0                                                                | 1.2                                                                    |

| TYPE    | NOMINAL<br>ZENER<br>VOLTAGE<br>at I <sub>ZT</sub><br>V <sub>Z</sub><br>(NOTE 1)<br>(Volts) | TEST<br>CURRENT<br>I <sub>ZT</sub><br>(mA) | MAXIMUM DYNAMIC<br>IMPEDANCE                    |                              |                                     | MAXIMUM DC REVERSE<br>LEAKAGE CURRENT |                           | MAXIMUM<br>SURGE<br>CURRENT<br>(NOTE 2)<br>I <sub>RM</sub><br>(mApk) | MAXIMUM<br>FORWARD<br>VOLTAGE<br>at 200mA<br>V <sub>F</sub><br>(Volts) |
|---------|--------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------|------------------------------|-------------------------------------|---------------------------------------|---------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------|
|         |                                                                                            |                                            | Z <sub>ZT</sub> at<br>I <sub>ZT</sub><br>(Ohms) | Z <sub>ZK</sub> at<br>(Ohms) | (NOTE 1)<br>I <sub>ZK</sub><br>(mA) | I <sub>R</sub><br>(uA)                | V <sub>R</sub><br>(Volts) |                                                                      |                                                                        |
| FM4739W | 9.1                                                                                        | 28.0                                       | 5.0                                             | 700                          | 0.5                                 | 10.0                                  | 7.0                       | 500.0                                                                | 1.2                                                                    |
| FM4740W | 10                                                                                         | 25.0                                       | 7.0                                             | 700                          | 0.25                                | 10.0                                  | 7.6                       | 454.0                                                                | 1.2                                                                    |
| FM4741W | 11                                                                                         | 23.0                                       | 8.0                                             | 700                          | 0.25                                | 5.0                                   | 8.4                       | 414.0                                                                | 1.2                                                                    |
| FM4742W | 12                                                                                         | 21.0                                       | 9.0                                             | 700                          | 0.25                                | 5.0                                   | 9.1                       | 380.0                                                                | 1.2                                                                    |
| FM4743W | 13                                                                                         | 19.0                                       | 10.0                                            | 700                          | 0.25                                | 5.0                                   | 9.9                       | 344.0                                                                | 1.2                                                                    |
| FM4744W | 15                                                                                         | 17.0                                       | 14.0                                            | 700                          | 0.25                                | 5.0                                   | 11.4                      | 305.0                                                                | 1.2                                                                    |
| FM4745W | 16                                                                                         | 15.5                                       | 16.0                                            | 700                          | 0.25                                | 5.0                                   | 12.2                      | 285.0                                                                | 1.2                                                                    |
| FM4746W | 18                                                                                         | 14.0                                       | 20.0                                            | 750                          | 0.25                                | 5.0                                   | 13.7                      | 250.0                                                                | 1.2                                                                    |
| FM4747W | 20                                                                                         | 12.5                                       | 22.0                                            | 750                          | 0.25                                | 5.0                                   | 15.2                      | 225.0                                                                | 1.2                                                                    |
| FM4748W | 22                                                                                         | 11.5                                       | 23.0                                            | 750                          | 0.25                                | 5.0                                   | 16.7                      | 205.0                                                                | 1.2                                                                    |
| FM4749W | 24                                                                                         | 10.5                                       | 25.0                                            | 750                          | 0.25                                | 5.0                                   | 18.2                      | 190.0                                                                | 1.2                                                                    |
| FM4750W | 27                                                                                         | 9.5                                        | 35.0                                            | 750                          | 0.25                                | 5.0                                   | 20.6                      | 170.0                                                                | 1.2                                                                    |
| FM4751W | 30                                                                                         | 8.5                                        | 40.0                                            | 1000                         | 0.25                                | 5.0                                   | 22.8                      | 150.0                                                                | 1.2                                                                    |
| FM4752W | 33                                                                                         | 7.5                                        | 45.0                                            | 1000                         | 0.25                                | 5.0                                   | 25.1                      | 135.0                                                                | 1.2                                                                    |
| FM4753W | 36                                                                                         | 7.0                                        | 50.0                                            | 1000                         | 0.25                                | 5.0                                   | 27.4                      | 125.0                                                                | 1.2                                                                    |
| FM4754W | 39                                                                                         | 6.5                                        | 60.0                                            | 1000                         | 0.25                                | 5.0                                   | 29.7                      | 115.0                                                                | 1.2                                                                    |
| FM4755W | 43                                                                                         | 6.0                                        | 70.0                                            | 1500                         | 0.25                                | 5.0                                   | 32.7                      | 110.0                                                                | 1.2                                                                    |
| FM4756W | 47                                                                                         | 5.5                                        | 80.0                                            | 1500                         | 0.25                                | 5.0                                   | 35.8                      | 95.0                                                                 | 1.2                                                                    |
| FM4757W | 51                                                                                         | 5.0                                        | 95.0                                            | 1500                         | 0.25                                | 5.0                                   | 38.8                      | 90.0                                                                 | 1.2                                                                    |
| FM4758W | 56                                                                                         | 4.5                                        | 110.0                                           | 2000                         | 0.25                                | 5.0                                   | 42.6                      | 80.0                                                                 | 1.2                                                                    |
| FM4759W | 62                                                                                         | 4.0                                        | 125.0                                           | 2000                         | 0.25                                | 5.0                                   | 47.1                      | 70.0                                                                 | 1.2                                                                    |
| FM4760W | 68                                                                                         | 3.7                                        | 150.0                                           | 2000                         | 0.25                                | 5.0                                   | 51.7                      | 65.0                                                                 | 1.2                                                                    |
| FM4761W | 75                                                                                         | 3.3                                        | 175.0                                           | 2000                         | 0.25                                | 5.0                                   | 56.0                      | 60.0                                                                 | 1.2                                                                    |
| FM4762W | 82                                                                                         | 3.0                                        | 200.0                                           | 3000                         | 0.25                                | 5.0                                   | 62.2                      | 55.0                                                                 | 1.2                                                                    |
| FM4763W | 91                                                                                         | 2.0                                        | 250.0                                           | 3000                         | 0.25                                | 5.0                                   | 69.2                      | 50.0                                                                 | 1.2                                                                    |

NOTES : 1. Standard voltage tolerance is 10%, Suffix "A":  $\pm 5\%$

2. Surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I<sub>ZT</sub> per JEDEC Method

3. Maximum steady state power dissipation is 1.0 watt at T<sub>T</sub>=75°C

# RATING AND CHARACTERISTIC CURVES ( FM4735W THRU FM4763W )

FIG. 1 - MAXIMUM CONTINUOUS POWER DISSIPATION

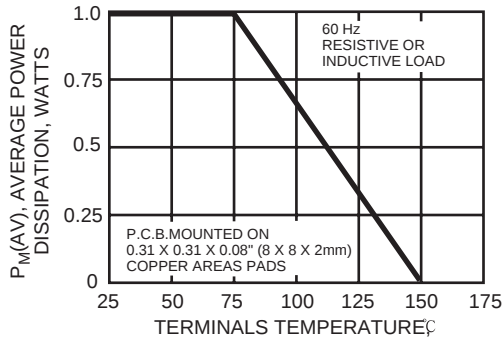


FIG. 2 - TYPICAL ZENER IMPEDANCE

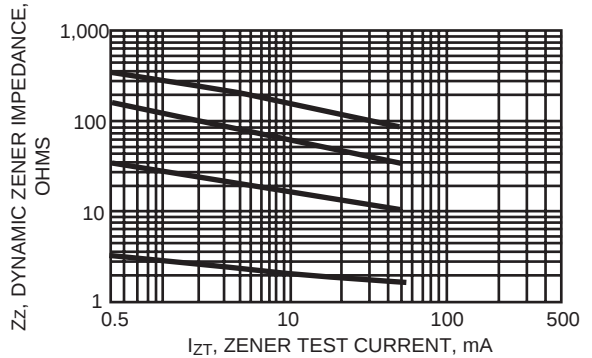


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS FOR FM4763W

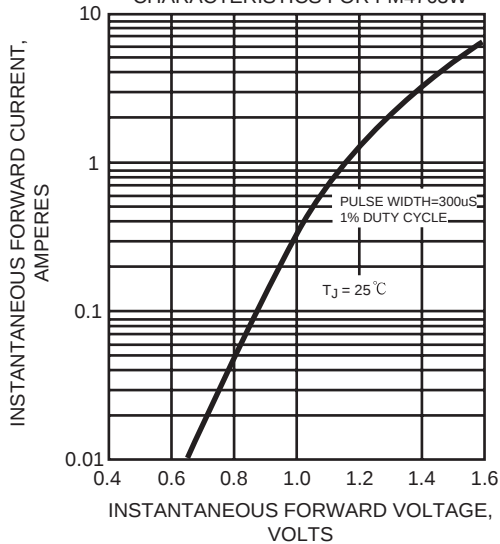


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

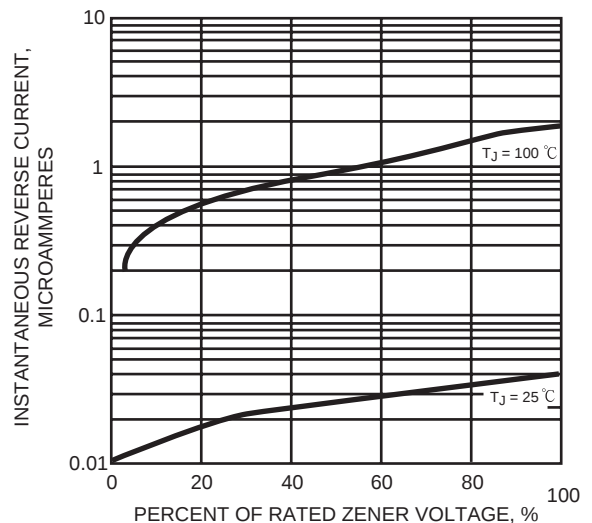


FIG. 5 - TYPICAL TEMPERATURE COEFFICIENTS

