

# Type D69

## 14mm Varistor

### Radial Leaded



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(800) 621-0326

### 14mm Varistor Parts list/Specifications

(14mm Nom. Disk size)

| Optifuse Style Number | Recognitions To Safety Agency Standards |     |     |     |     |      | Maximum Ratings |      |                |             |                          |      | Electrical Characteristics |      |   |      |             |               | Mechanical Dimensions |   |
|-----------------------|---|-----|-----|-----|-----|------|-----------------|------|----------------|-------------|--------------------------|------|----------------------------|------|---|------|-------------|---------------|-----------------------|---|
|                       |   |     |     |     |     |      | Continuous      |      | Transient      |             |                          |      | Varistor Voltage @ 1 mA DC |      | Max   |      | Typical Cap |               |                       |   |
|                       |   |     |     |     |     |      | Applied Voltage |      | Energy         |             | Peak Current 8 X 20 μsec |      |                            |      | Clamping Voltage (@ Test Current) (8 x 20 usec) |      |             | 1 V ms @ 1kHz |                       |   |
|                       |   |     |     |     |     |      |                 |      | 10 x 1000 μsec | 8 x 20 μsec | 1                        | 2    | Vmin                       | Vmax | (V)   | (A)  | (pF)        |               | Y                     | T |
| (A)                   | (B)                                     | (C) | (D) | (E) | (F) | (AC) | (DC)            | (J)  | (J)            | (A)         | (A)                      | (V)  | (V)                        | (V)  | (A)   | (pF) | Y           | T             |                       |   |
| D6921ZOV110RA04       | X                                       |     |     |     | X   |      | 11              | 14   | 5.2            | N/A         | 2000                     | 1000 | 16                         | 20   | 36  | 10   | 18000       | 0.072 [1.83]  | 0.161 [4.09]          |   |
| D6921ZOV140RA04       | X                                       |     |     |     | X   |      | 14              | 18   | 6.3            | N/A         | 2000                     | 1000 | 20                         | 24   | 43  | 10   | 15000       | 0.081 [2.06]  | 0.165 [4.19]          |   |
| D6921ZOV170RA05       | X                                       |     |     |     | X   |      | 17              | 22   | 7.8            | N/A         | 2000                     | 1000 | 24                         | 30   | 53  | 10   | 10000       | 0.092 [2.34]  | 0.170 [4.32]          |   |
| D6921ZOV200RA06       | X                                       |     |     |     | X   |      | 20              | 26   | 9.5            | N/A         | 2000                     | 1000 | 30                         | 36   | 65  | 10   | 14447       | 0.065 [1.65]  | 0.176 [4.47]          |   |
| D6921ZOV250RA07       | X                                       |     |     |     | X   |      | 25              | 31   | 11             | N/A         | 2000                     | 1000 | 35                         | 43   | 77  | 10   | 12225       | 0.071 [1.80]  | 0.182 [4.62]          |   |
| D6921ZOV300RA09       | X                                       |     |     |     | X   |      | 30              | 38   | 14             | N/A         | 2000                     | 1000 | 42                         | 52   | 93  | 10   | 10144       | 0.079 [2.00]  | 0.190 [4.83]          |   |
| D6921ZOV350RA10       | X                                       |     |     |     | X   |      | 35              | 45   | 16             | N/A         | 2000                     | 1000 | 50                         | 62   | 110   | 10   | 8514        | 0.088 [2.24]  | 0.199 [5.05]          |   |
| D6921ZOV400RA12       | X                                       |     |     |     | X   |      | 40              | 56   | 20             | N/A         | 2000                     | 1000 | 61                         | 75   | 135   | 10   | 3285        | 0.066 [1.68]  | 0.211 [5.36]          |   |
| D6921ZOV500RA06       | X                                       |     |     |     | X   |      | 50              | 66   | 28             | N/A         | 6000                     | 5000 | 74                         | 90   | 147   | 50   | 2829        | 0.055 [1.40]  | 0.174 [4.42]          |   |
| D6921ZOV600RA06       | X                                       |     |     |     | X   |      | 60              | 81   | 36             | N/A         | 6000                     | 5000 | 90                         | 110  | 175   | 50   | 2319        | 0.060 [1.52]  | 0.178 [4.52]          |   |
| D6921ZOV750RA06       | X                                       |     |     |     | X   |      | 75              | 102  | 44             | N/A         | 6000                     | 5000 | 108                        | 132  | 210   | 50   | 1933        | 0.065 [1.65]  | 0.184 [4.67]          |   |
| D6921ZOV950RA06       | X                                       |     |     |     | X   |      | 95              | 127  | 53             | N/A         | 6000                     | 5000 | 135                        | 165  | 255   | 50   | 1019        | 0.059 [1.50]  | 0.191 [4.85]          |   |
| D6921ZOV121RA09       | X                                       | X   | X   |     | X   |      | 120             | 160  | 52             | N/A         | 6000                     | 5000 | 170                        | 207  | 320   | 50   | 1019        | 0.066 [1.68]  | 0.201 [5.11]          |   |
| D6921ZOV131RA09       | X                                       | X   | X   | X   | X   | X    | 130             | 175  | 70             | 70          | 6500                     | 5000 | 184                        | 224  | 340   | 50   | 890         | 0.068 [1.73]  | 0.204 [5.18]          |   |
| D6921ZOV141RA09       | X                                       | X   | X   | X   | X   | X    | 140             | 180  | 78             | 78          | 6500                     | 5000 | 198                        | 242  | 360   | 50   | 825         | 0.072 [1.83]  | 0.208 [5.28]          |   |
| D6921ZOV151RA09       | X                                       | X   | X   | X   | X   | X    | 150             | 200  | 84             | 84          | 6500                     | 5000 | 212                        | 259  | 395   | 50   | 756         | 0.076 [1.93]  | 0.212 [5.38]          |   |
| D6921ZOV181RA09       | X                                       | X   | X   | X   | X   | X    | 180             | 230  | 100            | 100         | 6000                     | 5000 | 255                        | 311  | 465   | 50   | 648         | 0.081 [2.06]  | 0.223 [5.66]          |   |
| D69ZOV211RA65         | X                                       | X   | X   | X   | X   | X    | 210             | 270  | 120            | 120         | 6000                     | 4500 | 297                        | 363  | 545   | 50   | 550         | 0.091 [2.31]  | 0.239 [6.07]          |   |
| D69ZOV231RA70         | X                                       | X   | X   | X   | X   | X    | 230             | 300  | 135            | 135         | 6000                     | 4500 | 326                        | 397  | 595   | 50   | 504         | 0.097 [2.46]  | 0.242 [6.15]          |   |
| D69ZOV251RA72         | X                                       | X   | X   | X   | X   | X    | 250             | 330  | 145            | 145         | 6000                     | 4500 | 354                        | 432  | 650   | 50   | 465         | 0.103 [2.62]  | 0.249 [6.32]          |   |
| D69ZOV271RA75         | X                                       | X   | X   | X   | X   | X    | 270             | 360  | 160            | 160         | 6000                     | 4500 | 382                        | 466  | 710   | 50   | 432         | 0.110 [2.79]  | 0.257 [6.53]          |   |
| D69ZOV301RA80         | X                                       | X   | X   | X   | X   | X    | 300             | 390  | 175            | 175         | 6000                     | 4500 | 425                        | 518  | 790   | 50   | 386         | 0.117 [2.97]  | 0.268 [6.81]          |   |
| D69ZOV321RA90         | X                                       | X   | X   | X   | X   | X    | 320             | 420  | 190            | 190         | 6000                     | 4500 | 453                        | 553  | 850   | 50   | 363         | 0.153 [3.89]  | 0.276 [7.01]          |   |
| D69ZOV361RA85         | X                                       | X   | X   | X   | X   | X    | 360             | 470  | 205            | 205         | 6000                     | 4500 | 522                        | 638  | 960   | 50   | 313         | 0.202 [5.13]  | 0.281 [7.14]          |   |
| D69ZOV391RA85         | X                                       |     | X   | X   | X   | X    | 390             | 505  | 215            | 215         | 6000                     | 4500 | 552                        | 674  | 1025  | 50   | 297         | 0.167 [4.24]  | 0.291 [7.37]          |   |
| D69ZOV421RA90         | X                                       | X   | X   | X   | X   | X    | 420             | 560  | 225            | 225         | 6000                     | 4500 | 594                        | 725  | 1120  | 50   | 275         | 0.177 [4.50]  | 0.313 [7.95]          |   |
| D69ZOV461RA100        | X                                       | X   | X   | X   | X   | X    | 460             | 615  | 230            | 230         | 6000                     | 4500 | 651                        | 795  | 1240  | 50   | 251         | 0.189 [4.80]  | 0.322 [8.18]          |   |
| D69ZOV481RA105        | X                                       | X   | X   | X   | X   | X    | 480             | 640  | 235            | 235         | 6000                     | 4500 | 679                        | 829  | 1300  | 50   | 242         | 0.194 [4.93]  | 0.336 [8.53]          |   |
| D69ZOV511RA110        | X                                       | X   | X   | X   | X   | X    | 510             | 675  | 240            | 240         | 6000                     | 4500 | 722                        | 881  | 1350  | 50   | 227         | 0.201 [5.11]  | 0.347 [8.81]          |   |
| D69ZOV551RA115        | X                                       | X   | X   | X   | X   | X    | 550             | 700  | 255            | 255         | 6000                     | 4500 | 778                        | 950  | 1400  | 50   | 211         | 0.216 [5.49]  | 0.362 [9.19]          |   |
| D69ZOV581RA120        | X                                       | X   | X   | X   |     | X    | 580             | 735  | 265            | 265         | 6000                     | 4500 | 821                        | 1002 | 1500  | 50   | 199         | 0.224 [5.69]  | 0.373 [9.47]          |   |
| D69ZOV621RA130        | X                                       | X   | X   | X   |     | X    | 620             | 800  | 290            | 290         | 6000                     | 4500 | 877                        | 1071 | 1650  | 50   | 186         | 0.231 [5.87]  | 0.388 [9.86]          |   |
| D69ZOV681RA150        | X                                       | X   | X   | X   |     | X    | 680             | 860  | 310            | 310         | 6000                     | 4500 | 962                        | 1175 | 1800  | 50   | 170         | 0.247 [6.27]  | 0.411 [10.44]         |   |
| D69ZOV751RA165        | X                                       |     | X   | X   |     | X    | 750             | 900  | 350            | 350         | 6000                     | 4500 | 1062                       | 1300 | 2100  | 50   | 151         | 0.247 [6.27]  | 0.411 [10.44]         |   |
| D69ZOV102RA220        | X                                       | X   | X   | X   |     | X    | 1000            | 1200 | 510            | 510         | 6000                     | 4500 | 1414                       | 1728 | 2700  | 50   | 115         | 0.364 [9.25]  | 0.531 [13.49]         |   |

**Notes:**

- Maximum transient rating specified in this table are valid
- A = UL1449 File E86730 – Transient Surge Suppression
- B = UL1414 File E38785 – Across – The Line Applications
- C = CSA C22.2 File LR33468
- D = VDE/CECC 42000/42201 & IEC 1051
- E = UL497B – File E180012
- F = SEV – 96.7 70250.01

Note: All specifications subject to change without notice.

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## 14mm Varistor

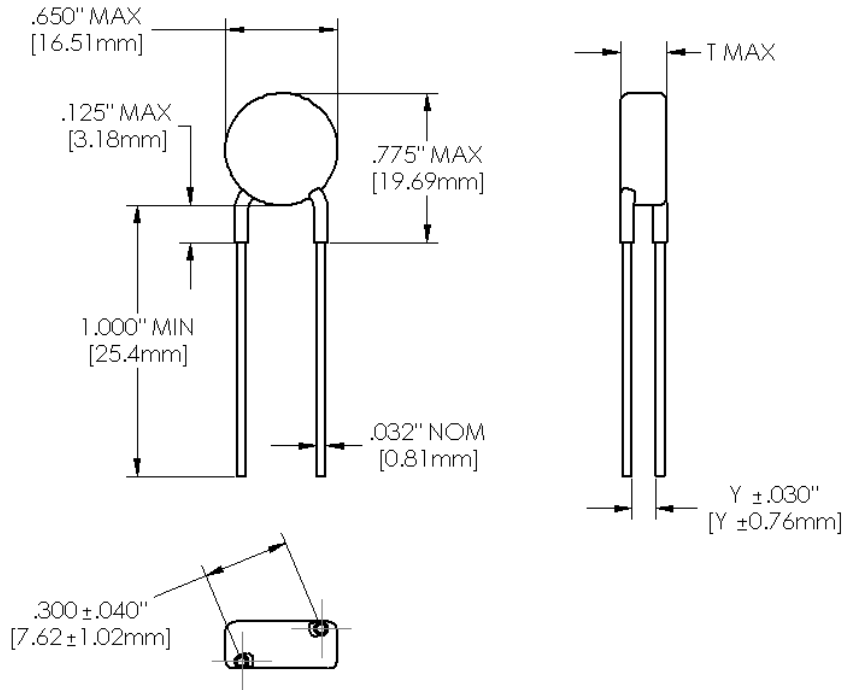
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#### Mechanical Dimensions: Inches [mm]



#### Thermal Specifications:

|   |          |
|---|----------|
| Minimum Operating Temperature:            | -40° C   |
| Maximum Operating Temperature:            | 85° C    |
| Varistor Voltage Temperature Coefficient: | -0.05° C |
| Minimum Storage Temperature:              | -50° C   |
| Maximum Storage Temperature:              | 125° C   |
| Current/Energy Derating Above 85° C:      | -2.5° C  |

#### Warning:



-Operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.  
 -Varistors are intended for occasional overcurrent protection. Application for repeated overcurrent condition and/or prolonged trip are not anticipated.  
 -Avoid contact of Varistors with chemical solvent. Prolonged contact will damage the device performance.

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