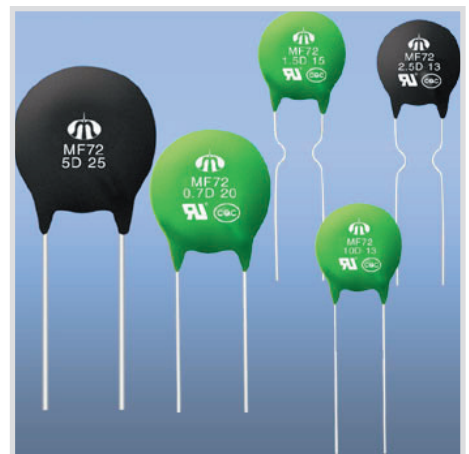


# MF72



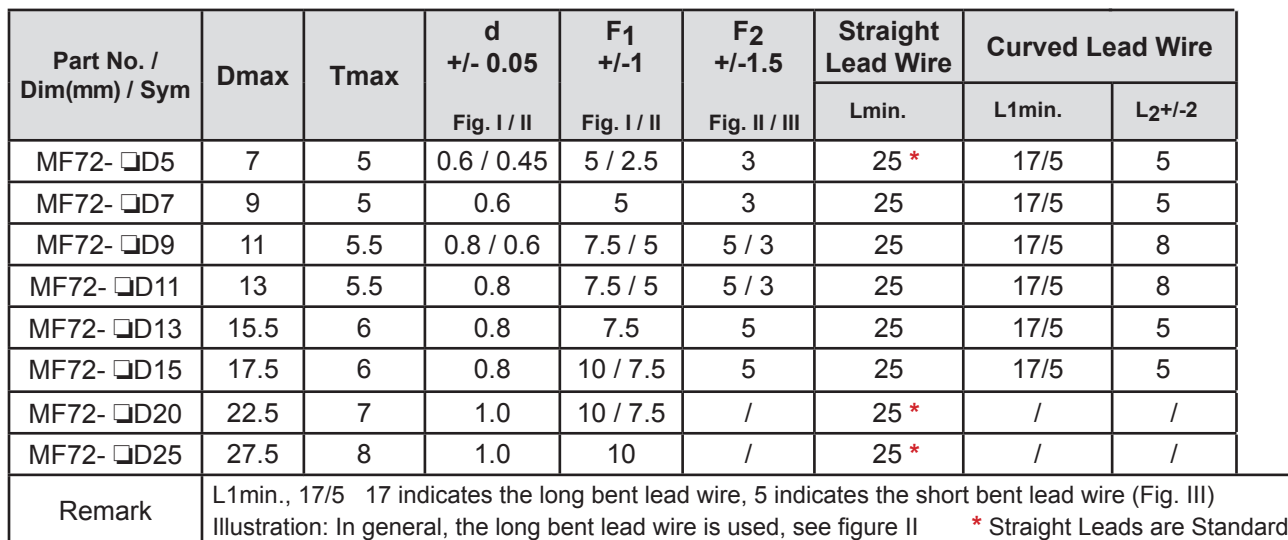
**CANTHERM**

*Supplying high-quality bimetal and thermal sensor products.*



**Power NTC Thermistor**

## Specification



## Application

Can be installed into the power circuits of:

- Power supplies and inverters
- Uninterruptible Power Supplies
- Energy saving lamps
- Electronic Ballasts
- Filament Protection of various types of lamps
- Some types of heaters
- For higher power circuits ask about the MF73 and MF74 series surge suppressors.

## Characteristics

- Small Size and fast response
- High Power handling capability
- Fast response to surge current
- High material constant (B value)
- Low residual resistance
- Wide operating temperature range -55 to +200C
- R25 allowable tolerance is  $\pm 20\%$
- Long-term Stability and Reliability
- UL 1434 File# E241319
- CQC File# 04001010556

## Main Techno-Parameter

Operating Temperature: -55 to 200°C

| Part No.   | R <sub>25</sub><br>(Ω) | Max. Steady State Current<br>(A) | Approx. R of Max. Current<br>(Ω) | Dissip. Coef.<br>(mW/°C) | Thermal Time Constant<br>(S) | Max. Load Capacitance in uF |         | UL |
|------------|------------------------|----------------------------------|----------------------------------|--------------------------|------------------------------|-----------------------------|---------|----|
|            |                        |                                  |                                  |                          |                              | 120 VAC                     | 240 VAC |    |
| MF72-005D5 | 5                      | 1                                | 0.353                            | 6                        | 20                           | 188                         | 47      |    |
| MF72-010D5 | 10                     | 0.7                              | 0.771                            | 6                        | 20                           | 188                         | 47      |    |
| MF72-060D5 | 60                     | 0.3                              | 1.878                            | 6                        | 18                           | 188                         | 47      |    |
| MF72-200D5 | 200                    | 0.1                              | 18.70                            | 6                        | 18                           | 88                          | 22      |    |
| MF72-005D7 | 5                      | 2                                | 0.283                            | 10                       | 30                           | 224                         | 56      |    |
| MF72-008D7 | 8                      | 1                                | 0.539                            | 9                        | 28                           | 224                         | 56      |    |
| MF72-010D7 | 10                     | 1                                | 0.616                            | 9                        | 27                           | 224                         | 56      |    |
| MF72-012D7 | 12                     | 1                                | 0.816                            | 9                        | 27                           | 224                         | 56      |    |
| MF72-016D7 | 16                     | 0.7                              | 1.003                            | 9                        | 27                           | 224                         | 56      |    |
| MF72-022D7 | 22                     | 0.6                              | 1.108                            | 9                        | 27                           | 224                         | 56      |    |
| MF72-033D7 | 33                     | 0.5                              | 1.485                            | 10                       | 28                           | 188                         | 47      |    |
| MF72-200D7 | 200                    | 0.2                              | 11.65                            | 11                       | 28                           | 188                         | 47      |    |
| MF72-003D9 | 3                      | 4                                | 0.120                            | 11                       | 35                           | 272                         | 68      | ✓  |
| MF72-004D9 | 4                      | 3                                | 0.190                            | 11                       | 35                           | 272                         | 68      | ✓  |
| MF72-005D9 | 5                      | 3                                | 0.210                            | 11                       | 34                           | 272                         | 68      | ✓  |
| MF72-006D9 | 6                      | 2                                | 0.315                            | 11                       | 34                           | 272                         | 68      | ✓  |
| MF72-008D9 | 8                      | 2                                | 0.400                            | 11                       | 32                           | 400                         | 100     | ✓  |
| MF72-010D9 | 10                     | 2                                | 0.458                            | 11                       | 32                           | 400                         | 100     | ✓  |
| MF72-012D9 | 12                     | 1                                | 0.652                            | 11                       | 32                           | 400                         | 100     | ✓  |
| MF72-016D9 | 16                     | 1                                | 0.802                            | 11                       | 31                           | 400                         | 100     | ✓  |
| MF72-020D9 | 20                     | 1                                | 0.864                            | 11                       | 30                           | 600                         | 150     | ✓  |
| MF72-022D9 | 22                     | 1                                | 0.950                            | 11                       | 30                           | 600                         | 150     | ✓  |
| MF72-030D9 | 30                     | 1                                | 1.022                            | 11                       | 30                           | 600                         | 150     | ✓  |
| MF72-033D9 | 33                     | 1                                | 1.124                            | 11                       | 30                           | 600                         | 150     | ✓  |
| MF72-050D9 | 50                     | 1                                | 1.252                            | 11                       | 30                           | 600                         | 150     | ✓  |
| MF72-060D9 | 60                     | 0.8                              | 1.502                            | 11                       | 30                           | 600                         | 150     | ✓  |
| MF72-080D9 | 80                     | 0.8                              | 2.010                            | 11                       | 30                           | 272                         | 68      | ✓  |

| Part No.      | R <sub>25</sub><br>(Ω) | Max. Steady State Current<br>(A) | Approx. R of Max. Current<br>(Ω) | Dissip. Coef.<br>(mW/°C) | Thermal Time Constant<br>(S) | Max. Load Capacitance in uF |         | UL |
|---------------|------------------------|----------------------------------|----------------------------------|--------------------------|------------------------------|-----------------------------|---------|----|
|               |                        |                                  |                                  |                          |                              | 120 VAC                     | 240 VAC |    |
| MF72-120D9    | 120                    | 0.8                              | 3.015                            | 11                       | 30                           | 272                         | 68      | ✓  |
| MF72-200D9    | 200                    | 0.5                              | 5.007                            | 11                       | 32                           | 188                         | 47      | ✓  |
| MF72-400D9    | 400                    | 0.2                              | 30.30                            | 11                       | 32                           | 188                         | 47      | ✓  |
| MF72-002.5D11 | 2.5                    | 5                                | 0.095                            | 13                       | 43                           | 600                         | 150     | ✓  |
| MF72-003D11   | 3                      | 5                                | 0.100                            | 13                       | 43                           | 600                         | 150     | ✓  |
| MF72-004D11   | 4                      | 4                                | 0.150                            | 13                       | 44                           | 600                         | 150     | ✓  |
| MF72-005D11   | 5                      | 4                                | 0.156                            | 13                       | 45                           | 600                         | 150     | ✓  |
| MF72-006D11   | 6                      | 3                                | 0.240                            | 13                       | 45                           | 880                         | 220     | ✓  |
| MF72-008D11   | 8                      | 3                                | 0.255                            | 14                       | 47                           | 880                         | 220     | ✓  |
| MF72-010D11   | 10                     | 3                                | 0.275                            | 14                       | 47                           | 880                         | 220     | ✓  |
| MF72-012D11   | 12                     | 2                                | 0.462                            | 14                       | 48                           | 880                         | 220     | ✓  |
| MF72-016D11   | 16                     | 2                                | 0.470                            | 14                       | 50                           | 880                         | 220     | ✓  |
| MF72-020D11   | 20                     | 2                                | 0.512                            | 15                       | 52                           | 880                         | 220     | ✓  |
| MF72-022D11   | 22                     | 2                                | 0.563                            | 15                       | 52                           | 880                         | 220     | ✓  |
| MF72-030D11   | 30                     | 1.5                              | 0.667                            | 15                       | 52                           | 880                         | 220     | ✓  |
| MF72-033D11   | 33                     | 1.5                              | 0.734                            | 15                       | 52                           | 880                         | 220     | ✓  |
| MF72-050D11   | 50                     | 1.5                              | 1.021                            | 15                       | 52                           | 880                         | 220     | ✓  |
| MF72-060D11   | 60                     | 1.5                              | 1.215                            | 15                       | 52                           | 880                         | 220     | ✓  |
| MF72-080D11   | 80                     | 1.2                              | 1.656                            | 15                       | 52                           | 600                         | 150     | ✓  |
| MF72-001.3D13 | 1.3                    | 7                                | 0.062                            | 13                       | 60                           | 880                         | 220     | ✓  |
| MF72-001.5D13 | 1.5                    | 7                                | 0.073                            | 13                       | 60                           | 880                         | 220     | ✓  |
| MF72-002.5D13 | 2.5                    | 6                                | 0.088                            | 13                       | 60                           | 880                         | 220     | ✓  |
| MF72-003D13   | 3                      | 6                                | 0.092                            | 14                       | 60                           | 880                         | 220     | ✓  |
| MF72-004D13   | 4                      | 5                                | 0.120                            | 15                       | 67                           | 880                         | 220     | ✓  |
| MF72-005D13   | 5                      | 5                                | 0.125                            | 15                       | 68                           | 880                         | 220     | ✓  |
| MF72-006D13   | 6                      | 4                                | 0.170                            | 15                       | 65                           | 880                         | 220     | ✓  |
| MF72-007D13   | 7                      | 4                                | 0.188                            | 15                       | 65                           | 1320                        | 330     | ✓  |

## — Main Techno-Parameter (cont.)

Operating Temperature: -55 to 200°C

| Part No.      | R <sub>25</sub><br>(Ω) | Max.<br>Steady<br>State<br>Current<br>(A) | Approx.<br>R of Max.<br>Current<br>(Ω) | Dissip.<br>Coef.<br>(mW/°C) | Thermal<br>Time<br>Constant<br>(S) | Max.<br>Load<br>Capacitance<br>in uF |         | UL |
|---------------|------------------------|-------------------------------------------|----------------------------------------|-----------------------------|------------------------------------|--------------------------------------|---------|----|
|               |                        |                                           |                                        |                             |                                    | 120 VAC                              | 240 VAC |    |
| MF72-008D13   | 8                      | 4                                         | 0.194                                  | 15                          | 60                                 | 1320                                 | 330     | ✓  |
| MF72-010D13   | 10                     | 4                                         | 0.206                                  | 15                          | 65                                 | 1320                                 | 330     | ✓  |
| MF72-012D13   | 12                     | 3                                         | 0.316                                  | 16                          | 65                                 | 1320                                 | 330     | ✓  |
| MF72-015D13   | 15                     | 3                                         | 0.335                                  | 16                          | 60                                 | 1320                                 | 330     | ✓  |
| MF72-016D13   | 16                     | 3                                         | 0.338                                  | 16                          | 60                                 | 1320                                 | 330     | ✓  |
| MF72-020D13   | 20                     | 3                                         | 0.372                                  | 16                          | 65                                 | 1320                                 | 330     | ✓  |
| MF72-030D13   | 30                     | 2.5                                       | 0.517                                  | 16                          | 65                                 | 1320                                 | 330     | ✓  |
| MF72-047D13   | 47                     | 2                                         | 0.810                                  | 17                          | 65                                 | 880                                  | 220     | ✓  |
| MF72-120D13   | 120                    | 1.2                                       | 2.124                                  | 16                          | 65                                 | 880                                  | 220     | ✓  |
| MF72-001.3D15 | 1.3                    | 8                                         | 0.048                                  | 18                          | 68                                 | 1320                                 | 330     | ✓  |
| MF72-001.5D15 | 1.5                    | 8                                         | 0.052                                  | 19                          | 69                                 | 1320                                 | 330     | ✓  |
| MF72-003D15   | 3                      | 7                                         | 0.075                                  | 18                          | 76                                 | 1320                                 | 330     | ✓  |
| MF72-005D15   | 5                      | 6                                         | 0.112                                  | 20                          | 76                                 | 1880                                 | 470     | ✓  |
| MF72-006D15   | 6                      | 5                                         | 0.155                                  | 20                          | 80                                 | 1880                                 | 470     | ✓  |
| MF72-007D15   | 7                      | 5                                         | 0.173                                  | 20                          | 80                                 | 1880                                 | 470     | ✓  |
| MF72-008D15   | 8                      | 5                                         | 0.178                                  | 20                          | 80                                 | 1880                                 | 470     | ✓  |
| MF72-010D15   | 10                     | 5                                         | 0.180                                  | 20                          | 75                                 | 1880                                 | 470     | ✓  |
| MF72-012D15   | 12                     | 4                                         | 0.250                                  | 20                          | 75                                 | 1880                                 | 470     | ✓  |
| MF72-015D15   | 15                     | 4                                         | 0.268                                  | 21                          | 85                                 | 1880                                 | 470     | ✓  |
| MF72-016D15   | 16                     | 4                                         | 0.276                                  | 21                          | 70                                 | 1880                                 | 470     | ✓  |
| MF72-020D15   | 20                     | 4                                         | 0.288                                  | 17                          | 86                                 | 1880                                 | 470     | ✓  |
| MF72-030D15   | 30                     | 3.5                                       | 0.438                                  | 18                          | 75                                 | 1320                                 | 330     | ✓  |

| Part No.      | R <sub>25</sub><br>(Ω) | Max.<br>Steady<br>State<br>Current<br>(A) | Approx.<br>R of Max.<br>Current<br>(Ω) | Dissip.<br>Coef.<br>(mW/°C) | Thermal<br>Time<br>Constant<br>(S) | Max.<br>Load<br>Capacitance<br>in uF |         | UL |
|---------------|------------------------|-------------------------------------------|----------------------------------------|-----------------------------|------------------------------------|--------------------------------------|---------|----|
|               |                        |                                           |                                        |                             |                                    | 120 VAC                              | 240 VAC |    |
| MF72-047D15   | 47                     | 3                                         | 0.680                                  | 21                          | 86                                 | 1320                                 | 330     | ✓  |
| MF72-120D15   | 120                    | 1.8                                       | 1.652                                  | 22                          | 87                                 | 1320                                 | 330     | ✓  |
| MF72-000.7D20 | 0.7                    | 11                                        | 0.018                                  | 25                          | 89                                 | 1880                                 | 470     | ✓  |
| MF72-001.3D20 | 1.3                    | 9                                         | 0.037                                  | 24                          | 88                                 | 1880                                 | 470     | ✓  |
| MF72-003D20   | 3                      | 8                                         | 0.055                                  | 24                          | 88                                 | 1880                                 | 470     | ✓  |
| MF72-005D20   | 5                      | 7                                         | 0.087                                  | 23                          | 87                                 | 2240                                 | 560     | ✓  |
| MF72-006D20   | 6                      | 6                                         | 0.113                                  | 25                          | 103                                | 2240                                 | 560     | ✓  |
| MF72-008D20   | 8                      | 6                                         | 0.142                                  | 25                          | 105                                | 2240                                 | 560     | ✓  |
| MF72-010D20   | 10                     | 6                                         | 0.162                                  | 24                          | 102                                | 2240                                 | 560     | ✓  |
| MF72-012D20   | 12                     | 5                                         | 0.195                                  | 24                          | 100                                | 2720                                 | 680     | ✓  |
| MF72-016D20   | 16                     | 5                                         | 0.212                                  | 25                          | 100                                | 2720                                 | 680     | ✓  |
| MF72-000.7D25 | 0.7                    | 12                                        | 0.014                                  | 30                          | 120                                | 2240                                 | 560     |    |
| MF72-001.5D25 | 1.5                    | 10                                        | 0.027                                  | 30                          | 121                                | 2240                                 | 560     |    |
| MF72-003D25   | 3                      | 9                                         | 0.044                                  | 32                          | 124                                | 2240                                 | 560     |    |
| MF72-005D25   | 5                      | 8                                         | 0.070                                  | 32                          | 125                                | 2720                                 | 680     |    |
| MF72-008D25   | 8                      | 7                                         | 0.114                                  | 33                          | 125                                | 2720                                 | 680     |    |
| MF72-0010D25  | 10                     | 7                                         | 0.130                                  | 32                          | 125                                | 2720                                 | 680     |    |
| MF72-012D25   | 12                     | 6                                         | 0.156                                  | 32                          | 126                                | 3280                                 | 820     |    |
| MF72-016D25   | 16                     | 6                                         | 0.160                                  | 35                          | 126                                | 3280                                 | 820     |    |

Note: Unless otherwise specified, the allowable tolerance of R<sub>25</sub> is +/- 20%  
Specifications may change without notice.



# CANTHERM

Supplying high-quality bimetal and thermal sensor products.

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