

# TWM/TWW Series



## Ceramic Housed Radial Terminal Power

The TWM/TWW series radial terminal power resistors offer significant board space savings over axial terminal products. Generated heat is also kept away from the circuit board.

They are recommended for commercial applications requiring low cost.



### FEATURES

- Economical Commercial Grade for general purpose use
- Wirewound and Metal Oxide construction
- Wide resistance range
- Flameproof inorganic construction

### SERIES SPECIFICATIONS

| Series | Wattage | Resistance | Voltage | Element     |
|--------|---------|------------|---------|-------------|
| TWW3   | 3       | 0.01-39Ω   | 250     | Wire        |
| TWW5   | 5       | 0.01-47Ω   | 350     | Wire        |
| TWW10  | 10      | 0.04-990Ω  | 750     | Wire        |
| TWW15  | 15      | 0.1Ω-560Ω  | 700     | Wire        |
| TWW20  | 20      | 0.1Ω-560Ω  | 750     | Wire        |
| TWM3   | 3       | 43-50KΩ    | 250     | Metal oxide |
| TWM5   | 5       | 51-50KΩ    | 350     | Metal oxide |
| TWM10  | 10      | 1000-50KΩ  | 750     | Metal oxide |
| TWM15  | 15      | 561Ω-200KΩ | 700     | Metal oxide |
| TWM20  | 20      | 561Ω-200KΩ | 750     | Metal oxide |

### CHARACTERISTICS

|  |  |
|--|--|
| <b>Housing</b>                         | Ceramic  |
| <b>Core</b>                            | Fiberglass   |
| <b>Filling</b>                         | Cement based   |
| <b>Tolerance</b>                       | 5% standard  |
| <b>Temperature coefficient</b>         | 0.01-20Ω ±400ppm/°C;<br>>20-10Ω ±350ppm/°C   |
| <b>Dielectric withstanding voltage</b> | 1,000VAC   |
| <b>Short time overload</b>             | TWW: 10x rated power for 5 sec.;<br>TWM: 5x rated power for 5 sec.<br>15 & 20 watt: 2.5x RCWV for 5 sec. |
| <b>Operating Temperature</b>           | -55°C to 275°C   |
| <b>Storage Temperature</b>             | 15°C-35°C, humidity: 25%-75%   |

### Derating



(continued)

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### DIMENSIONS

| 3-10 watt Series | Height (in./mm) ±1mm | Width (in./mm) ±1mm |
|------------------|----------------------|---------------------|
| TWW3             | 0.98 / 25            | 0.33 / 8.5          |
| TWW5             | 0.98 / 25            | 0.35 / 9            |
| TWM10            | 1.97 / 50            | 0.35 / 9            |
| TWM3             | 0.98 / 25            | 0.33 / 8.5          |
| TWM5             | 0.98 / 25            | 0.35 / 9            |
| TWM10            | 1.97 / 50            | 0.35 / 9            |



### HOW TO ORDER



#### Standard part numbers for TWW series

| Ohmic value | Wattage                |   |   |    |    | Ohmic value | Wattage |                        |   |   |    | Ohmic value | Wattage |    |                        |   |   |    |    |
|-------------|------------------------|---|---|----|----|-------------|---------|------------------------|---|---|----|-------------|---------|----|------------------------|---|---|----|----|
|             | Part No. Prefix Suffix | 3 | 5 | 10 | 15 |             | 20      | Part No. Prefix Suffix | 3 | 5 | 10 |             | 15      | 20 | Part No. Prefix Suffix | 3 | 5 | 10 | 15 |
| 0.01        | R01E                   | ✓ | ✓ |    |    | 2.0         | R0E     | ✓                      | ✓ | ✓ |    | 47          | R47E    | ✓  | ✓                      | ✓ |   |    |    |
| 0.02        | R02E                   | ✓ | ✓ |    |    | 2.7         | R7E     | ✓                      | ✓ | ✓ | ✓  | 51          | R51E    | ✓  | ✓                      | ✓ |   |    | ✓  |
| 0.03        | R03E                   | ✓ | ✓ |    |    | 3.0         | R0E     | ✓                      | ✓ | ✓ |    | 56          | R56E    | ✓  | ✓                      | ✓ |   |    |    |
| 0.04        | R04E                   | ✓ | ✓ | ✓  |    | 3.3         | R3E     | ✓                      | ✓ | ✓ |    | 68          | R68E    | ✓  | ✓                      | ✓ |   |    |    |
| 0.05        | R05E                   | ✓ | ✓ | ✓  |    | 3.9         | R9E     | ✓                      | ✓ | ✓ |    | 75          | R75E    | ✓  | ✓                      | ✓ |   |    | ✓  |
| 0.10        | R10E                   | ✓ | ✓ | ✓  | ✓  | 4.3         | R3E     | ✓                      | ✓ | ✓ |    | 82          | R82E    | ✓  | ✓                      | ✓ |   |    |    |
| 0.15        | R15E                   | ✓ | ✓ | ✓  | ✓  | 4.7         | R7E     | ✓                      | ✓ | ✓ |    | 100         | R100E   | ✓  | ✓                      | ✓ | ✓ |    |    |
| 0.20        | R20E                   | ✓ | ✓ | ✓  | ✓  | 5.6         | R6E     | ✓                      | ✓ | ✓ |    | 150         | R150E   | ✓  | ✓                      | ✓ | ✓ |    |    |
| 0.27        | R27E                   | ✓ | ✓ | ✓  | ✓  | 6.8         | R8E     | ✓                      | ✓ | ✓ |    | 200         | R200E   | ✓  | ✓                      | ✓ | ✓ |    |    |
| 0.30        | R30E                   | ✓ | ✓ | ✓  | ✓  | 7.5         | R5E     | ✓                      | ✓ | ✓ |    | 270         | R270E   | ✓  | ✓                      | ✓ | ✓ |    |    |
| 0.33        | R33E                   | ✓ | ✓ | ✓  | ✓  | 8.2         | R2E     | ✓                      | ✓ | ✓ |    | 300         | R300E   | ✓  | ✓                      | ✓ | ✓ |    |    |
| 0.39        | R39E                   | ✓ | ✓ | ✓  | ✓  | 10          | R0E     | ✓                      | ✓ | ✓ |    | 330         | R330E   | ✓  | ✓                      | ✓ | ✓ |    |    |
| 0.43        | R43E                   | ✓ | ✓ | ✓  | ✓  | 15          | R5E     | ✓                      | ✓ | ✓ |    | 390         | R390E   | ✓  | ✓                      | ✓ | ✓ |    |    |
| 0.47        | R47E                   | ✓ | ✓ | ✓  | ✓  | 20          | R0E     | ✓                      | ✓ | ✓ |    | 430         | R430E   | ✓  | ✓                      | ✓ | ✓ |    |    |
| 0.56        | R56E                   | ✓ | ✓ | ✓  | ✓  | 22          | R2E     | ✓                      | ✓ | ✓ |    | 470         | R470E   | ✓  | ✓                      | ✓ | ✓ |    |    |
| 0.68        | R68E                   | ✓ | ✓ | ✓  | ✓  | 27          | R7E     | ✓                      | ✓ | ✓ |    | 500         | R500E   | ✓  | ✓                      | ✓ | ✓ |    | ✓  |
| 0.75        | R75E                   | ✓ | ✓ | ✓  | ✓  | 30          | R0E     | ✓                      | ✓ | ✓ |    | 560         | R560E   | ✓  | ✓                      | ✓ | ✓ |    |    |
| 0.82        | R82E                   | ✓ | ✓ | ✓  | ✓  | 33          | R3E     | ✓                      | ✓ | ✓ |    | 680         | R680E   | ✓  | ✓                      | ✓ | ✓ |    |    |
| 1.0         | R10E                   | ✓ | ✓ | ✓  | ✓  | 39          | R9E     | ✓                      | ✓ | ✓ |    | 750         | R750E   | ✓  | ✓                      | ✓ | ✓ |    |    |
| 1.5         | R15E                   | ✓ | ✓ | ✓  | ✓  | 43          | R3E     | ✓                      | ✓ | ✓ |    | 820         | R820E   | ✓  | ✓                      | ✓ | ✓ |    |    |

#### Standard part numbers for TWM series

| Ohmic value | Wattage                |   | Ohmic value | Wattage |                        | Ohmic value | Wattage |   |                        |   |   |
|-------------|------------------------|---|-------------|---------|------------------------|-------------|---------|---|------------------------|---|---|
|             | Part No. Prefix Suffix | 3 |             | 5       | Part No. Prefix Suffix |             | 3       | 5 | Part No. Prefix Suffix | 3 | 5 |
| 43          | R43E                   | ✓ | 1000        | R1K0    | ✓                      | 5100        | R5K1    | ✓ |                        |   |   |
| 47          | R47E                   | ✓ | 1500        | R1K5    | ✓                      | 6800        | R6K8    | ✓ |                        |   |   |
| 56          | R56E                   | ✓ | 2000        | R2K0    | ✓                      | 7500        | R7K5    | ✓ |                        |   |   |
| 68          | R68E                   | ✓ | 2700        | R2K7    | ✓                      | 8200        | R8K2    | ✓ |                        |   |   |
| 75          | R75E                   | ✓ | 3000        | R3K0    | ✓                      | 10000       | R10K    | ✓ |                        |   |   |
| 82          | R82E                   | ✓ | 3300        | R3K3    | ✓                      | 27000       | R27K    | ✓ |                        |   |   |
| 100         | R100E                  | ✓ | 3900        | R3K9    | ✓                      | 47000       | R47K    | ✓ |                        |   |   |
| 150         | R150E                  | ✓ | 4300        | R4K3    | ✓                      | 51000       | R51K    | ✓ |                        |   |   |
| 200         | R200E                  | ✓ | 4700        | R4K7    | ✓                      | 75000       | R75K    | ✓ |                        |   |   |
| 270         | R270E                  | ✓ | 5600        | R5K6    | ✓                      |             |         |   |                        |   |   |
| 300         | R300E                  | ✓ |             |         |                        |             |         |   |                        |   |   |
| 330         | R330E                  | ✓ |             |         |                        |             |         |   |                        |   |   |
| 390         | R390E                  | ✓ |             |         |                        |             |         |   |                        |   |   |
| 430         | R430E                  | ✓ |             |         |                        |             |         |   |                        |   |   |
| 470         | R470E                  | ✓ |             |         |                        |             |         |   |                        |   |   |
| 560         | R560E                  | ✓ |             |         |                        |             |         |   |                        |   |   |
| 680         | R680E                  | ✓ |             |         |                        |             |         |   |                        |   |   |
| 750         | R750E                  | ✓ |             |         |                        |             |         |   |                        |   |   |
| 820         | R820E                  | ✓ |             |         |                        |             |         |   |                        |   |   |

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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