

# 40 Series

## Ohmicone® Silicone-Ceramic Conformal Axial Terminal Wirewound 1% and 5% Tolerance Standard



Ohmite 40 Series resistors are the most economical conformal silicone-ceramic coated resistors offered. These all-welded units are characterized by their low temperature coefficients and resistance to thermal shock, making them ideal for a wide range of electrical and electronic applications.

Units with 1% and 5% tolerances are identical in construction and electrical specifications. Durable but economical 40 Series resistors exceed industry requirements for quality.

### FEATURES

- Economical
- Applications include commercial, industrial and communications equipment
- Stability under high temperature conditions
- All-welded construction
- RoHS compliant; add "E" suffix to part number to specify.

### SERIES SPECIFICATIONS

| Series | Wattage | Ohms      | Voltage |
|--------|---------|-----------|---------|
| 41     | 1.0     | 0.10-6K   | 150     |
| 42     | 2.0     | 0.10-8K   | 100     |
| 43     | 3.0     | 0.10-20K  | 200     |
| 45     | 5.0     | 0.10-70K  | 460     |
| 47     | 7.0     | 0.10-80K  | 670     |
| 40     | 10.0    | 0.10-150K | 1000    |

Non-Inductive versions available. Insert "N" before tolerance code.  
Example: 42NJ27R

### CHARACTERISTICS

|                                |   |
|--------------------------------|---|
| <b>Coating</b>                 | Conformal silicone-ceramic.   |
| <b>Core</b>                    | Ceramic.  |
| <b>Terminals</b>               | Solder-coated copper clad axial. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu                        |
| <b>Derating</b>                | Linearly from 100% @ +25°C to 0% @ +275°C.  |
| <b>Tolerance</b>               | ±5% (J type), ±1% (F type) (other tolerances available).  |
| <b>Power rating</b>            | Based on 25°C free air rating   |
| <b>Overload</b>                | Under 5 watts: 5 times rated wattage for 5 seconds. 5 watts and over: 10 times rated wattage for 5 seconds. |
| <b>Temperature coefficient</b> | Under 1Ω: ±90 ppm/°C; 1Ω to 9.99Ω: ±50 ppm/°C; 10Ω and over: ±20 ppm/°C                                     |
| <b>Operating temp. range</b>   | -55°C to 275°C  |

### DIMENSIONS

(in./mm max.)



| Series | Wattage | Length       | Diam.        | Lead ga. |
|--------|---------|--------------|--------------|----------|
| 41     | 1.0     | 0.437 / 11.1 | 0.125 / 3.2  | 24       |
| 42     | 2.0     | 0.406 / 10.3 | 0.219 / 5.6  | 20       |
| 43     | 3.0     | 0.593 / 15.1 | 0.219 / 5.6  | 20       |
| 45     | 5.0     | 0.937 / 23.8 | 0.343 / 8.7  | 18       |
| 47     | 7.0     | 1.280 / 32.5 | 0.343 / 8.7  | 18       |
| 40     | 10.0    | 1.900 / 48.3 | 0.406 / 10.3 | 18       |

(continued)

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## Ohmicone® Silicone-Ceramic Conformal Axial Terminal Wirewound 1% and 5% Tolerance Standard

### ORDERING INFORMATION

#### Standard part numbers

| Ohmic value | Wattage and Tolerance      |   |   |   |    |              |   |   |   |    | Ohmic value | Wattage and Tolerance |   |   |   |    |              |   |   |   |    | Ohmic value | Wattage and Tolerance |     |   |   |    |              |   |   |   |    |
|-------------|----------------------------|---|---|---|----|--------------|---|---|---|----|-------------|-----------------------|---|---|---|----|--------------|---|---|---|----|-------------|-----------------------|-----|---|---|----|--------------|---|---|---|----|
|             | 1% Tolerance               |   |   |   |    | 5% Tolerance |   |   |   |    |             | 1% Tolerance          |   |   |   |    | 5% Tolerance |   |   |   |    |             | 1% Tolerance          |     |   |   |    | 5% Tolerance |   |   |   |    |
|             | Part No. Prefix > Suffix > | 1 | 3 | 5 | 10 | 1            | 2 | 3 | 5 | 10 |             | 1                     | 2 | 3 | 5 | 10 | 1            | 2 | 3 | 5 | 10 |             | 1                     | 2   | 3 | 5 | 10 | 1            | 2 | 3 | 5 | 10 |
| 0.1         | R10                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 68          | 68R                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 2,200       | 2K2                   | ✓   | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 0.15        | R15                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 75          | 75R                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 2,500                 | 2K5 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 0.2         | R20                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 82          | 82R                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 2,700                 | 2K7 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 0.25        | R25                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 100         | 100                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 3,000                 | 3K0 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 0.3         | R30                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 120         | 120                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 3,300                 | 3K3 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 0.33        | R33                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 125         | 125                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 3,500                 | 3K5 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 0.4         | R40                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 150         | 150                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 3,900                 | 3K9 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 0.5         | R50                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 180         | 180                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 4,000                 | 4K0 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 0.75        | R75                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 200         | 200                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 4,500                 | 4K5 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 1           | 1R0                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 220         | 220                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 4,700                 | 4K7 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 1.5         | 1R5                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 225         | 225                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 5,000                 | 5K0 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 2           | 2R0                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 250         | 250                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 6,000                 | 6K0 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 2.2         | 2R2                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 270         | 270                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 6,800                 | 6K8 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 3           | 3R0                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 300         | 300                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 7,000                 | 7K0 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 4           | 4R0                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 330         | 330                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 7,500                 | 7K5 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 5           | 5R0                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 350         | 350                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 8,000                 | 8K0 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 7.5         | 7R5                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 390         | 390                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 9,000                 | 9K0 | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 10          | 10R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 400         | 400                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 10,000                | 10K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 12          | 12R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 450         | 450                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 12,000                | 12K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 15          | 15R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 470         | 470                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 13,000                | 13K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 18          | 18R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 500         | 500                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 15,000                | 15K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 20          | 20R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 560         | 560                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 17,000                | 17K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 22          | 22R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 600         | 600                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 20,000                | 20K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 25          | 25R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 680         | 680                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 22,000                | 22K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 27          | 27R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 750         | 750                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 25,000                | 25K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 30          | 30R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 800         | 800                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 30,000                | 30K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 33          | 33R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 820         | 820                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 33,000                | 33K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 35          | 35R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 900         | 900                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 35,000                | 35K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 39          | 39R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 1,000       | 1K0                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 40,000                | 40K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 40          | 40R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 1,100       | 1K1                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | 50,000                | 50K | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 47          | 47R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 1,200       | 1K2                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | ✓                     | ✓   | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 50          | 50R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 1,500       | 1K5                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | ✓                     | ✓   | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 56          | 56R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 1,800       | 1K8                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | ✓                     | ✓   | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |
| 62          | 62R                        | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | 2,000       | 2K0                   | ✓ | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  | ✓           | ✓                     | ✓   | ✓ | ✓ | ✓  | ✓            | ✓ | ✓ | ✓ | ✓  |

Shaded values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.

✓ = Standard values  
 ✦ = Non-standard values subject to minimum handling charge per item



## 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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