

# 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)

# 40 Series

## Ohmicone<sup>®</sup> 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  |              |   |   |    |
|-------------|------------------------|--------------|---|---|----|-------------|------------------------|--------------|---|---|----|--|------------------------|--------------|---|---|----|
|             | Part No. Prefix Suffix | 1% Tolerance | 3 | 5 | 10 |             | Part No. Prefix Suffix | 1% Tolerance | 3 | 5 | 10 |  | Part No. Prefix Suffix | 1% Tolerance | 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                    | ✓            | ✓ | ✓ | ✓  | ✓ = Standard values<br>✦ = Non-standard values subject to minimum handling charge per item |                        |              |   |   |    |
| 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.

40 Series Ohmicone<sup>®</sup> Silicone Ceramic Conformal Axial Term. Wirewound

Non-Inductive Winding *optional* (blank= std. winding)

RoHS Compliant

**4 1 N J R 1 0 E - T** — Tape & reel *optional* pc/reel:

| Wattage | Tolerance | Resistance    |          |
|---------|-----------|---------------|----------|
| 1 = 1W  | F = 1%    | R10 = 0.10Ω   | 41: 5000 |
| 2       | J = 5%    | 1R0 = 1.0Ω    | 42: 1250 |
| 3       |           | 10R = 10.0Ω   | 43: 1250 |
| 5       |           | 250 = 250Ω    | 45: 1000 |
| 7       |           | 1K0 = 1,000Ω  | 47: 500  |
| 0 = 10W |           | 4K5 = 4,500Ω  | 40: 500  |
|         |           | 50K = 50,000Ω |          |



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.