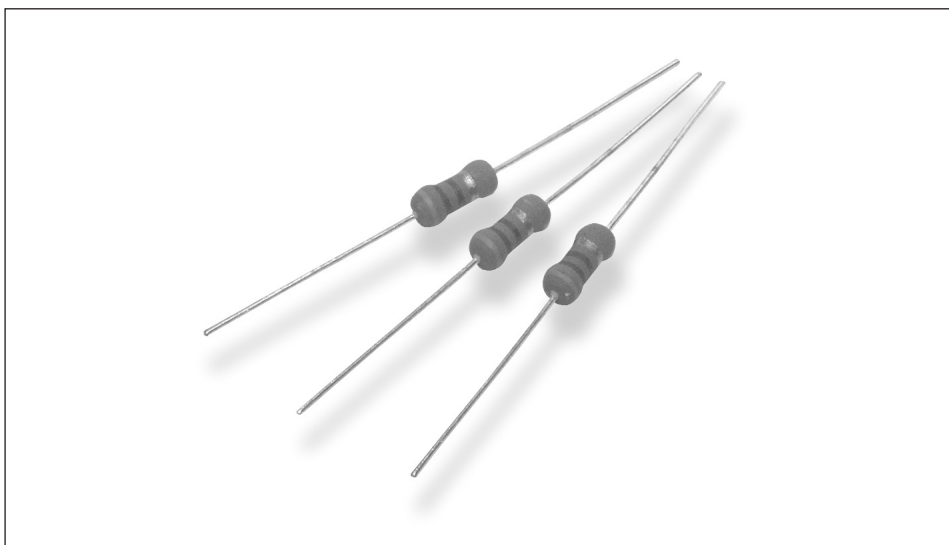


## Type ROX Series

### Key Features

- High Power with Small Size for Space Saving
- Excellent Long Term Stability
- Complete Flameproof Construction
- High Surge/Overload Capability
- Controlled Temperature Capability
- Solvent Resistant Coat and Code
- Special Lead Formations Possible



The resistive element comprises a metal oxide film deposited on a ceramic former. The element is protected by a flameproof coating which will withstand overload conditions without flame or mechanical damage. They are recommended for use in applications such as line protection etc...

### Characteristics - Electrical

|                                               | ROX05                                       | ROX1 | ROX2 | ROX05S | ROX1SS | ROX1S | ROX2S | ROX3S | ROX5S |
|-----------------------------------------------|---------------------------------------------|------|------|--------|--------|-------|-------|-------|-------|
| <b>Rated Power @ 70°C (W):</b>                | 0.5                                         | 1    | 2    | 0.5    | 1      | 1     | 2     | 3     | 5     |
| <b>Resistance Range (ohms) Min:</b>           | 0.1                                         | 0.1  | 0.1  | 0.1    | 0.1    | 0.1   | 0.1   | 0.1   | 0.1   |
| <b>Max:</b>                                   | 330K                                        | 470K | 560K | 100K   | 200R   | 270K  | 470K  | 560K  | 560K  |
| <b>Tolerance and Code Letter:</b>             | 2% (G) / 5% (J) 1% (F) available on request |      |      |        |        |       |       |       |       |
| <b>Temp. Coefficient Max (ppm/°C):</b>        | ± 350                                       |      |      |        |        |       |       |       |       |
| <b>Selection Series:</b>                      | E24                                         |      |      |        |        |       |       |       |       |
| <b>Limiting Element Voltage (V):</b>          | 250                                         | 350  | 350  | 250    | 350    | 350   | 350   | 350   | 500   |
| <b>Maximum Overload Voltage (V):</b>          | 400                                         | 600  | 600  | 400    | 400    | 600   | 600   | 600   | 800   |
| <b>Max Intermittent Overload Voltage (V):</b> | 500                                         | 750  | 750  | 500    | 500    | 750   | 750   | 750   | 1500  |
| <b>Operating Temp. Range (°C):</b>            | -55 to +155                                 |      |      |        |        |       |       |       |       |
| <b>Climatic Category:</b>                     | 55/155/42                                   |      |      |        |        |       |       |       |       |
| <b>Dielectric Strength (V):</b>               | 250                                         | 350  | 350  | 250    | 350    | 350   | 350   | 350   | 500   |
| <b>Insulation Resistance (Mohms):</b>         | 1,000                                       |      |      |        |        |       |       |       |       |

### Mounting

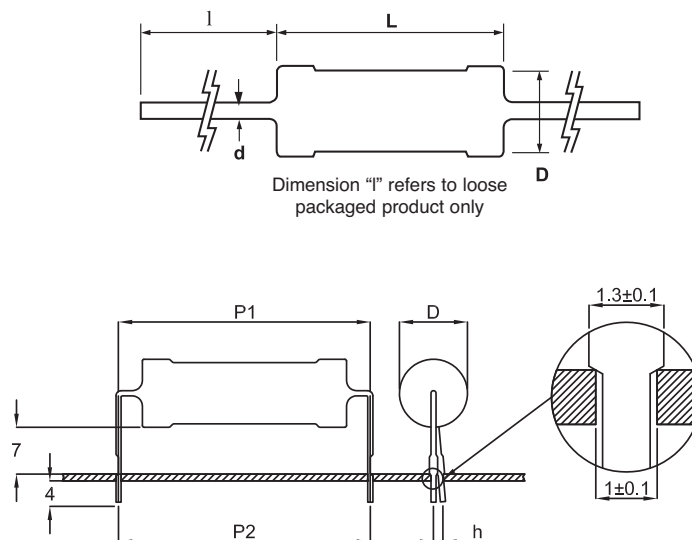
The resistors are suitable for processing on automatic insertion equipment and cutting and bending machines.

### Marking

The resistors are marked with a four-band colour code in accordance with IEC 62. Grey base colour for Standard Range, Sea Blue colour for "S" Range.

## Type ROX Series

### Dimensions



#### Standard Range Leaded

| Style | D max | L Max | l +/-3 | d +/-0.05 |
|-------|-------|-------|--------|-----------|
| ROX05 | 3.5   | 10    | 28     | 0.54      |
| ROX1  | 5     | 12    | 25     | 0.7       |
| ROX2  | 5.5   | 16    | 28     | 0.7       |

#### Standard Range Pre-formed

| Style | P1 ±0.5 | P2 ±2 | H1       | H2     | h max |
|-------|---------|-------|----------|--------|-------|
| ROX05 | 12.5    | 12.5  | 7.5 ±1.5 | 3.5 ±1 | 2.0   |
| ROX1  | 15      | 15    | 7.5 ±1.5 | 3.5 ±1 | 2.0   |
| ROX2  | 20      | 20    | 7.5 ±2.0 | 3.5 ±1 | 3.0   |

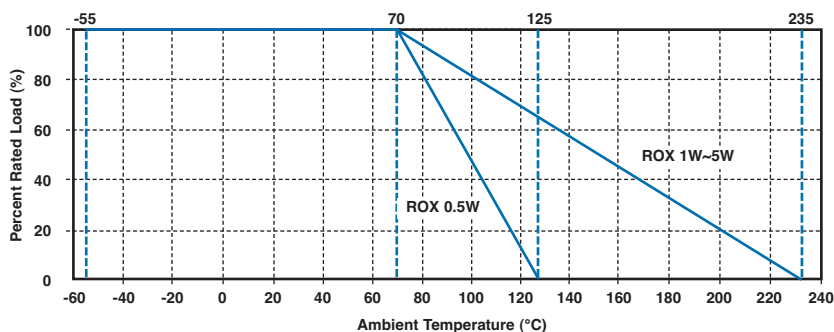
#### "S" Range Leaded

| Style  | D max | L Max | l +/-3 | d +/-0.05 |
|--------|-------|-------|--------|-----------|
| ROX05S | 2.5   | 7.5   | 28     | 0.54      |
| ROX1SS | 2.5   | 7.5   | 28     | 0.54      |
| ROX1S  | 3.5   | 10    | 28     | 0.7       |
| ROX2S  | 5     | 12    | 25     | 0.7       |
| ROX3S  | 5.5   | 16    | 28     | 0.7       |
| ROX5S  | 8     | 25    | 38     | 0.75      |

#### "S" Range Pre-formed

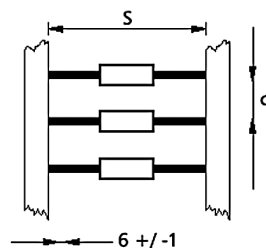
| Style  | P1 ±0.5 | P2 ±2 | H1       | H2     | h max |
|--------|---------|-------|----------|--------|-------|
| ROX05S | 10      | 10    | 7.5 ±1.5 | 3.5 ±1 | 2.0   |
| ROX1SS | 10      | 10    | 7.5 ±1.5 | 3.5 ±1 | 2.0   |
| ROX1S  | 12.5    | 12.5  | 7.5 ±0.5 | 3.5 ±1 | 2.0   |
| ROX2S  | 15      | 15    | 7.5 ±1.5 | 3.5 ±1 | 2.9   |
| ROX3S  | 20      | 20    | 7.5 ±2.0 | 3.5 ±1 | 3.0   |
| ROX5S  | 30      | 30    | 7.5 ±2.0 | 3.5 ±1 | 3.0   |

### Power Derating Curve



## Type ROX Series

### Packaging



| New Style Reference | Quantity per Ammo Pack | Std tape Spacing *S ±1 | Component Spacing c ±0.5 |
|---------------------|------------------------|------------------------|--------------------------|
| ROX05               | 2,000                  | 52                     | 5                        |
| ROX1                | 1,000                  | 52                     | 5                        |
| ROX2                | 1,000                  | 63                     | 10                       |
| ROX05S              | 2,000                  | 52                     | 5                        |
| ROX1SS              | 2,000                  | 52                     | 5                        |
| ROX1S               | 2,000                  | 52                     | 5                        |
| ROX2S               | 1,000                  | 52                     | 5                        |
| ROX3S               | 1,000                  | 63                     | 10                       |
| ROX5S               | 500                    | 63                     | 10                       |

\* Other tape spacings available on request

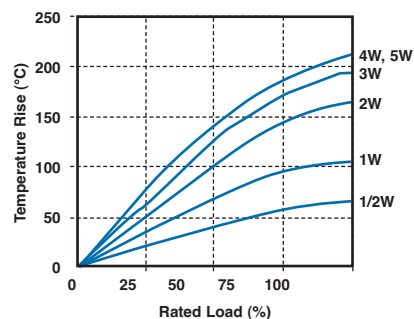
Other packaging styles are available on request

### Performance Characteristics

The evaluation of the performance characteristics is carried out with reference to IEC Specifications QC 400 000 and QC 400 100.

| TEST REF | Long Term Tests ± (5% + 0.1 ohm)   |
|----------|------------------------------------|
| 4.23     | Climatic sequence                  |
| 4.24     | Damp heat, steady state            |
| 4.25.1   | Endurance at 70°C                  |
| 4.25.3   | Endurance at 235°C                 |
| TEST REF | Short Term Tests ± (1% + 0.05 ohm) |
| 4.13     | Overload                           |
| 4.16     | Robustness of terminations         |
| 4.18     | Resistance to soldering heat       |
| 4.19     | Rapid change of temperature        |
| 4.22     | Vibration                          |

### Heat Rise Chart



### How to Order

| ROX                                               | 1                          | J                                                 | 100R                                                                                     | BL                   |
|---------------------------------------------------|----------------------------|---------------------------------------------------|------------------------------------------------------------------------------------------|----------------------|
| Common Part                                       | Style                      | Tolerance                                         | Value                                                                                    | Preform              |
| ROX - Flame-Proof Power Metal Oxide Film Resistor | 1 - 1S<br>2 - 2S<br>3 - 3S | G - 2%<br>J - 5%<br>(F - 1% available on request) | 100 ohm<br>(100 ohms) 100R<br>1K0<br>(1000 ohms) 1K0<br>100 K ohm<br>(100,000 ohms) 100K | BL - Preformed Leads |

TE Connectivity, TE connectivity (logo) and TE (logo) are trademarks.

Other logos, product and Company names mentioned herein may be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information in this datasheet, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this datasheet are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.

## 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

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9