

# ACS Silicon Coated Axial Resistors **ARCOL**

The design of the ACS resistor provides a good balance of power density, stability and resistance to environment for a broad range of industrial power applications, such as drives and controls.

- Good ratio between power capability and physical size
- Wound to maximise high pulse capability
- Low inductive versions available
- Available on tape and reel 1W to 5W or bulk
- RoHS Compliant



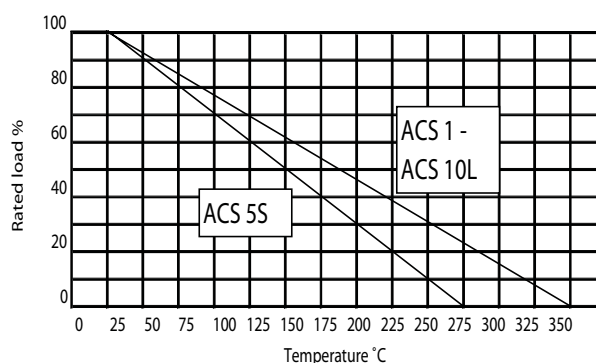
## Characteristics

|                               |                                                                                                                           |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Tolerance (Code):             | Standard J ( $\pm 5\%$ ) and K ( $\pm 10\%$ ); other tolerances available on request                                      |
| Temperature coefficient:      | $<1R \pm 90\text{ppm}/^\circ\text{C}$ , $1R-10R \pm 50\text{ppm}/^\circ\text{C}$ , $>10R \pm 20\text{ppm}/^\circ\text{C}$ |
| Insulation resistance:        | 1,000M ohms minimum dry, 100M ohms minimum after moisture test                                                            |
| Dielectric withstand voltage: | 500V AC                                                                                                                   |
| MIL types:                    | Available upon request.                                                                                                   |

## Electrical Specifications

| Type    | Wattage | Max working voltage (V) | Resistance range for 5% tolerance |                   |
|---------|---------|-------------------------|-----------------------------------|-------------------|
|         |         |                         | Inductive                         | Non Inductive (N) |
| ACS 1   | 1       | 50                      | R01 - 8K                          | R01 - 3K          |
| ACS 2   | 2       | 100                     | R01 - 10K                         | R01 - 4K          |
| ACS 3   | 3       | 200                     | R02 - 18K                         | R02 - 9K          |
| ACS 5S  | 5       | 157                     | R05 - 22K                         | R05 - 10K         |
| ACS 5L  | 5       | 400                     | R05 - 35K                         | R05 - 17K         |
| ACS 7   | 7       | 450                     | R06 - 50K                         | R06 - 25K         |
| ACS 10S | 10      | 700                     | R1 - 70K                          | R1 - 35K          |
| ACS 10L | 10      | 800                     | R5 - 100K                         | R3 - 50K          |

## Derating Curve



## Ordering Procedure

Standard Resistor To specify standard: Series, Wattage Rating, Winding Type, Resistance and Tolerance Code, e.g.: ACS3 18K F

ACS3N 18K F (non-inductive)

Tolerance (Code)  $\pm 1\%$  (F),  $\pm 5\%$  (J),  $\pm 10\%$  (K)

## Typical Inductance

| Type            | $<50$ ohms        | $>50$ ohms        |
|-----------------|-------------------|-------------------|
| ACS 1 - ACS2    | $0.2\mu\text{H}$  | $0.37\mu\text{H}$ |
| ACS 3 - ACS5L   | $0.3\mu\text{H}$  | $0.6\mu\text{H}$  |
| ACS 7 - ACS 10L | $0.65\mu\text{H}$ | $1.2\mu\text{H}$  |

As specified by MIL-R-39007. Max series inductance at 0.5MHz.

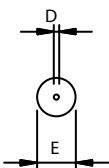
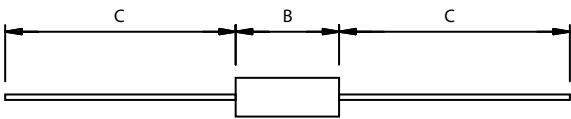
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The information contained herein does not form part of a contract and is subject to change without notice. Arcol operate a policy of continual product development, therefore, specifications may change.

It is the responsibility of the customer to ensure that the component selected from our range is suitable for the intended application. If in doubt please ask Arcol.

Dimensions (mm)



| Type    | B ± 1.5 | C ± 1.0 | D ± 0.02 | E ± 0.8 |
|---------|---------|---------|----------|---------|
| ACS 1   | 12      | 37.0    | 0.8      | 4       |
| ACS 2   | 13.8    | 35.0    | 0.8      | 4.7     |
| ACS 3   | 15.7    | 35.0    | 0.8      | 5.9     |
| ACS 5S  | 13      | 35.0    | 0.8      | 3.5     |
| ACS 5L  | 22.5    | 44.0    | 1.0      | 8.52    |
| ACS 7   | 24.5    | 44.0    | 1.0      | 8.52    |
| ACS 10S | 43.7    | 35      | 1.0      | 8.52    |
| ACS 10L | 46.2    | 33.0    | 1.0      | 10.5    |

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