

ARC1 Planar (Flat) Leaded Resistor

This versatile Non Inductive quality range of high voltage thick film resistors, available in conformal or glass coatings, has been designed into a wide range of applications including high voltage medical test equipment, HV power supplies and various high spec instrumentation.

- Variety of configurations
- High voltage capability
- RoHS Compliant
- Low TCR
- Tolerance as low as $\pm 0.1\%$
- Non inductive
- Both axial and radial leaded



Electrical Specifications

| Type | Electrical data | | Resistance range available at Tolerance / TCR | | | | | |
|-----------|-----------------|--------|---|-------------------------------|--------------------------------|--------------------------------|------------------------------|------------------------------|
| | P Watt | U kVdc | $\pm 0.1 - 10\%$ 15 ppm/°C | $\pm 0.1 - 10\%$ 25 ppm/°C | $\pm 0.25 - 10\%$ 50 ppm/°C | $\pm 0.5 - 10\%$ 100 ppm/°C | $\pm 1 - 10\%$ 200 ppm/°C | $\pm 5 - 10\%$ 200 ppm/°C |
| ARC1-325 | 1 | 8 | 50K - 25M | 10K - 50M | 4K - 200M | 4K - 1G | 4K - 1G | 4K - 4G |
| ARC1-338 | 1.5 | 10 | 100K - 30M | 20K - 60M | 8K - 250M | 8K - 1G | 8K - 1G | 8K - 4G |
| ARC1-513 | 1 | 5 | 50K - 50M | 10K - 100M | 1K - 150M | 200R - 250M | 100R - 1G | 50R - 10G |
| ARC1-551 | 2 | 20 | 100K - 200M | 30K - 250M | 4K - 400M | 1K - 1G | 300R - 1G | 200R - 25G |
| ARC1-1025 | 2 | 10 | 100K - 200M | 25K - 300M | 4K - 300M | 1K - 1G | 400R - 1G | 200R - 30G |
| ARC1-1051 | 3 | 30 | 300K - 300M | 50K - 300M | 8K - 500M | 3K - 1G | 800R - 1G | 400R - 30G |
| ARC1-1538 | 3 | 15 | 300K - 300M | 60K - 300M | 9K - 500M | 3K - 1G | 800R - 1G | 500R - 30G |
| ARC1-1551 | 4.5 | 30 | 400K - 300M | 75K - 300M | 12K - 500M | 4K - 1G | 1K - 1G | 600R - 30G |
| ARC1-1576 | 5.5 | 35 | 600K - 300M | 120K - 300M | 18K - 500M | 6K - 1G | 1K - 1G | 1K - 30G |
| ARC1-2599 | 10 | 35 | 2M - 300M | 200K - 300M | 30K - 500M | 12K - 1G | 3K - 1G | 3K - 30G |

Characteristics

| | |
|---------------------------------|--|
| Operating temperature: | -55°C to +175°C |
| Tolerance (Code): | $\pm 0.1\%$ (B), $\pm 0.25\%$ (C), $\pm 0.5\%$ (D), $\pm 1\%$ (F), $\pm 2\%$ (G), $\pm 5\%$ (J), $\pm 10\%$ (K) |
| Temperature coefficient (Code): | $\pm 15\text{ppm}/^\circ\text{C}$ (A), $\pm 25\text{ppm}/^\circ\text{C}$ (E), $\pm 50\text{ppm}/^\circ\text{C}$ (F), $\pm 100\text{ppm}/^\circ\text{C}$ (S), $\pm 200\text{ppm}/^\circ\text{C}$ (L) TCR stated is measured at +25°C and +85°C. For TCR outside this range, please contact ARCOL |
| Insulation resistance: | > 10,000Mohm 500 Volts @ 25°C, 75% relative humidity |
| Dielectric strength: | > 1000 Volt 25°C, 75% relative humidity |
| Thermal shock: | $\Delta R/R$ 0.2% max |
| Overload: | $\Delta R/R$ 0.25% max 1.5 x Pnom, 5 sec (do not exceed 1.5 x V max) |
| Moisture resistance: | $\Delta R/R$ 0.25% max |
| Load life: | $\Delta R/R$ 0.25% max 1000 hours at rated power |

These resistors are tailored for operation in air and not aggressive atmospheres.
For special applications (i.e. oil, casting, moulding, etc) please contact ARCOL.

ARCOL UK Limited,
Threemilestone Ind. Estate,
Truro, Cornwall, TR4 9LG, UK.
T +44 (0) 1872 277431
F +44 (0) 1872 222002
E sales@arcolresistors.com

www.arcolresistors.com

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.

Ordering Procedure

Standard Resistor To specify standard: Series, Termination Style, Coating Type, Ohmic Value, Tolerance Code and Temperature Coefficient Code, e.g.: ARC1-551 AU 1G D E

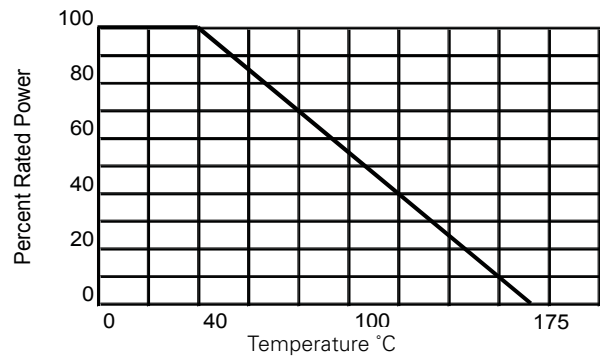
Termination Style (Code) Axial (A), Radial (R)

Coating Type (Code) Conformal (U), Glass (G)

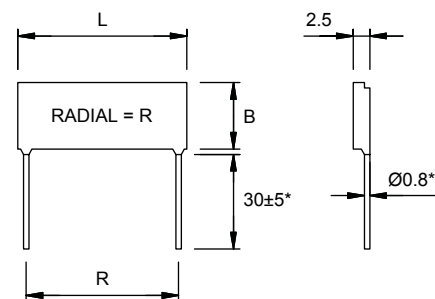
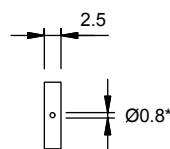
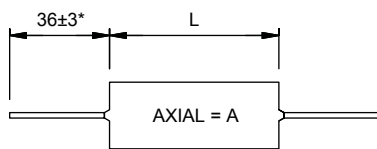
Tolerance (Code) $\pm 0.1\%$ (B), $\pm 0.25\%$ (C), $\pm 0.5\%$ (D), $\pm 1\%$ (F), $\pm 2\%$ (G), $\pm 5\%$ (J), $\pm 10\%$ (K)

Temperature Coefficient (Code) $\pm 15\text{ppm}/^\circ\text{C}$ (A), $\pm 25\text{ppm}/^\circ\text{C}$ (E), $\pm 50\text{ppm}/^\circ\text{C}$ (F), $\pm 100\text{ppm}/^\circ\text{C}$ (S), $\pm 200\text{ppm}/^\circ\text{C}$ (L)

Derating Curve



Dimensions (mm)



*ARC1-513 Pins: L = 9±1
Ø = 0.6 x 0.3

| Type | Dimensions | | |
|-----------|------------|------|------|
| | L | B | R |
| ARC1-325 | 25.4 | 3.8 | 22.9 |
| ARC1-338 | 38.0 | 3.8 | 35.7 |
| ARC1-513 | 12.7 | 5.0 | 10.2 |
| ARC1-551 | 50.8 | 5.0 | 48.3 |
| ARC1-1025 | 25.4 | 10.0 | 22.9 |
| ARC1-1051 | 50.8 | 10.0 | 48.3 |
| ARC1-1538 | 38.0 | 15.0 | 35.7 |
| ARC1-1551 | 50.8 | 15.0 | 48.3 |
| ARC1-1576 | 76.2 | 15.0 | 73.4 |
| ARC1-2599 | 101.6 | 24.0 | 98.6 |

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