

# 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](http://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

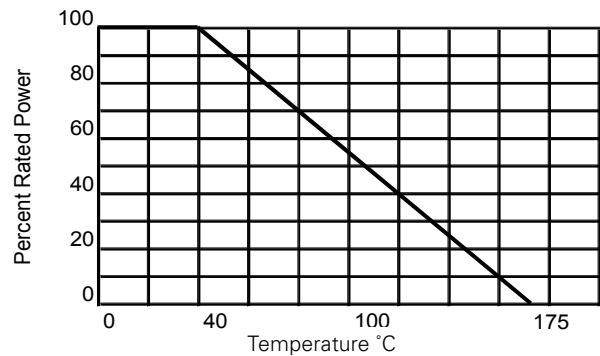
**Termination Style (Code)** Axial (A), Radial (R)

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

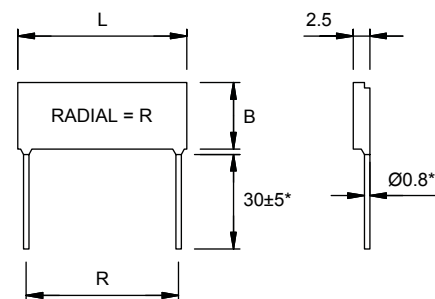
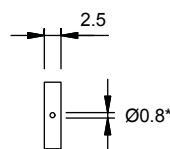
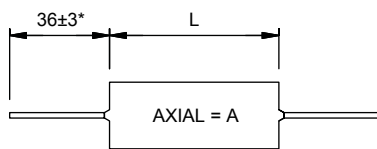
**Tolerance (Code)**  $\pm 0.1\%$  (B),  $\pm 0.25\%$  (C),  $\pm 0.5\%$  (D),  $\pm 1\%$  (F),  $\pm 2\%$  (G),  $\pm 5\%$  (J),  $\pm 10\%$  (K)

**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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