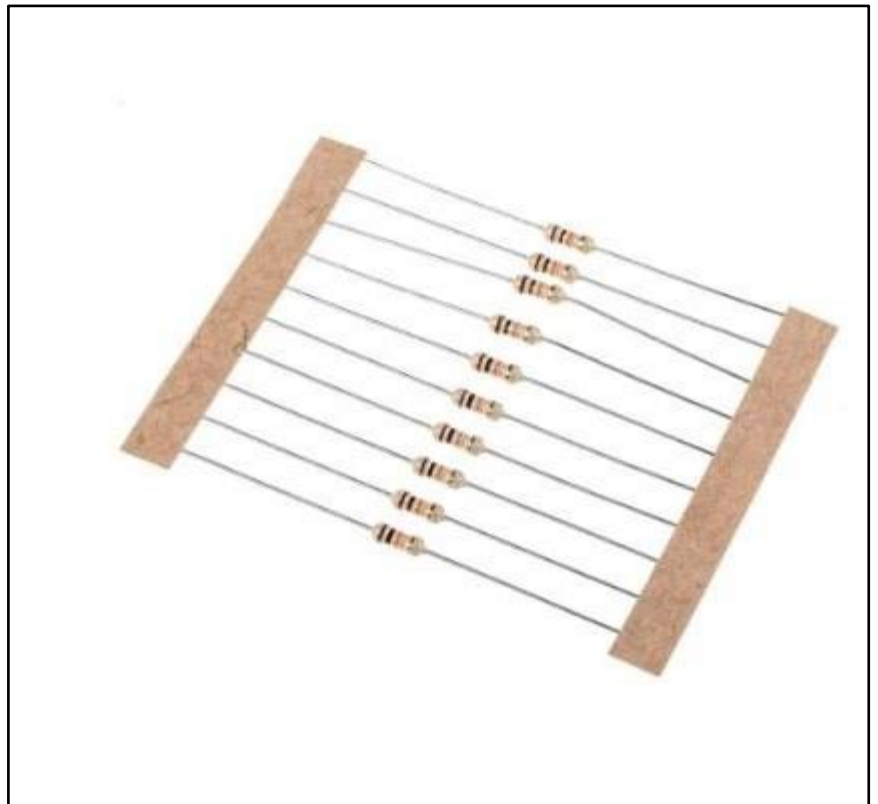


FEATURES

- Available in resistances 0 Ω to 47 M Ω
- Resistor body: 2.3mm diameter, 6.3mm length
- Long-term stability
- Solder plated copper leads

HA PRO 0 Ω - 47M Ω Carbon Film Resistor 1/4 Watt $\pm 5\%$



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

A comprehensive range of high stability carbon film resistors qualified and tested to the requirements of IEC 115 and IEC 115-2. The ruggedized welded cap and lead method of manufacture provides a considerable strength and resistance to damage. The coating materials and the colour bands are epoxy resin and are highly resistant to solvents, abrasion and chipping. Improvements in materials and processing have allowed the rated power to be improved. Excellent stability against changes in load conditions or moisture levels, with a low noise level and high reliability make these carbon film resistors suitable for a wide range of applications. Rated at 70°C in free air mounted horizontally. Climatic category 55/155/56.

General Specifications

Resistance	0Ω - 47MΩ
Composition	Carbon powder , epoxy resin
Technology	Carbon Film
Axial/Radial	Axial
Case Style	Ceramic

Electrical Specifications

Power Rating	1/4 Watt
Tolerance	±5%
Maximum Operating Voltage	250V
Maximum Overload Voltage	500V

Mechanical Specifications

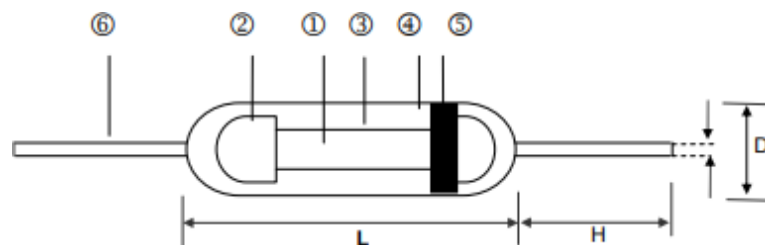
Resistor	
Dimensions	2.33mm x 6.3mm
Diameter	2.33mm
Length	6.3mm
Mounting Style	PCB Mount

Through Hole Fixed Resistors

Resistor Lead	
Dimensions	0.55mm x 28mm
Diameter	0.55mm
Length	28mm
Number of Terminals	2

Operation Environment Specifications

Minimum Operating Temperature	-50°C
Maximum Operating Temperature	155°C
Minimum Temperature Coefficient	-500ppm/°C
Maximum Temperature Coefficient	350ppm/°C



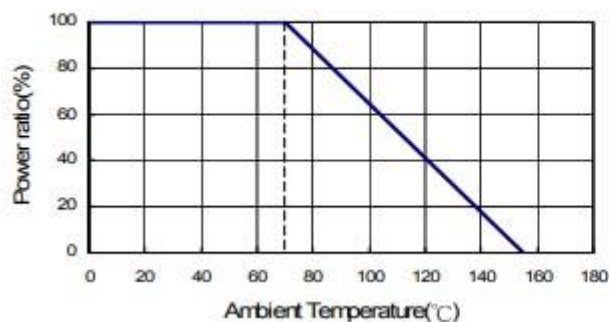
① Ceramic Rod	④ Non-flame Paint With Sol Vent-proof
② Tinned Iron Caps	⑤ Colour Code
③ Carbon Film	⑥ Lead Wire

■Dimensions

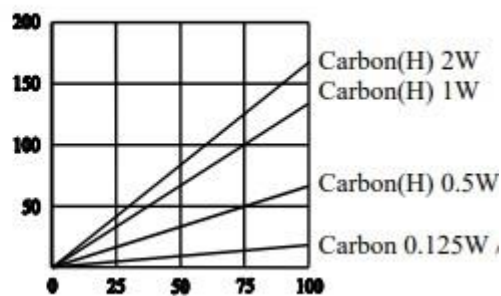
Unit: mm

Type	L	D	H	d	Weight (g) (1000pcs)
Carbon 0.125W	3.3±0.4/-0.2	1.8±0.3	29.3±2.0	0.452.3±0.03	92
Carbon 0.25W	6.3±0.5	2.3±0.3	28±2.0	0.55±0.03	155
Carbon 0.5W (H)	6.3±0.5	2.3±0.3	28±2.0	0.55±0.03	155
Carbon 1W (H)	9.0±0.5	3.2±0.5	26±2.0	0.65±0.03	352
Carbon 2W (H)	11.5±1.0	4.5±0.5	35±2.0	0.78±0.03	775

■Derating Curve



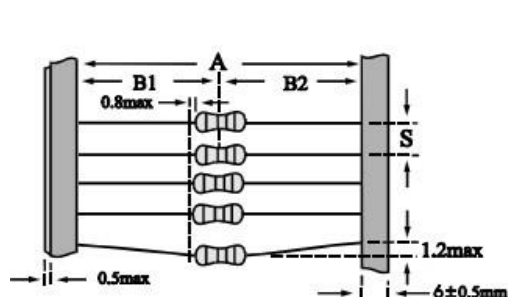
■Hop-Spot Temperature



Type \ Item	Power Rating at 70°C	Operating Temp. Range	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Resistance Range
						±5%
Carbon	0.125W	-55 ~ +155°C	150V	300V	300V	0.1Ω - 22MΩ
Carbon	0.25W		250V	500V	500V	1Ω - 10MΩ
Carbon(H)	0.5W		300V	500V	500V	0.1Ω - 22MΩ
Carbon(H)	1W		400V	800V	800V	1Ω - 10MΩ
Carbon(H)	2W		500V	1000V	1000V	0.1Ω - 10MΩ

■Taping/Packing Specifications

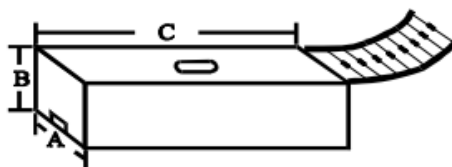
Packing Methods (Ammo)



Unit: mm

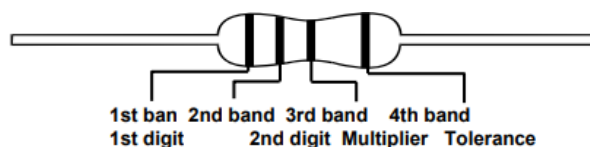
Packaging Type	Packing Methods		
	A	B1-B2	S
Carbon 0.125W	52+1/-0	1.2	5
Carbon 0.25W	52+1/-0	1.2	5
Carbon 0.5W (H)	52+1/-0	1.2	5
Carbon 1W (H)	52+1/-0	1.5	5
Carbon 2W (H)	52+1/-0	1.5	10

Ammo Packing



Unit: mm

Packaging Type	Packing Methods			Ammo Packing			
	A	B1-B2	S	A	B	C	Qty
Carbon 0.125W	26+1/-0	1.0	5	80	105	264	5,000
Carbon 0.25W	26+1/-0	1.0	5	80	105	264	5,000
Carbon 0.5W (H)	26+1/-0	1.0	5	80	105	264	5,000
Carbon 1W (H)	73+1/-0	1.5	5	103	82	265	1,000
Carbon 2W (H)	73+1/-0	1.5	10	103	96	265	1,000



±5%	E-24	1.0	1.1	1.2	1.3	1.5	1.6	1.8	2.0	2.2	2.4	2.7	3.0	3.3	3.6	3.9	4.3	4.7	5.1	5.6	6.2	6.8	7.5	8.2	9.1
-----	------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Color	Digit	Multiplier	Tolerance	
	-	-	-	-
	-	10 ⁻²	-	-
	-	10 ⁻¹	±5.0%	J
	0	10 ⁰	-	-
	1	10 ¹	-	-
	2	10 ²	-	-
	3	10 ³	-	-
	4	10 ⁴	-	-
	5	10 ⁵	-	-
	6	10 ⁶	-	-
	7	10 ⁷	-	-
	8	10 ⁸	-	-
	9	10 ⁹	-	-

