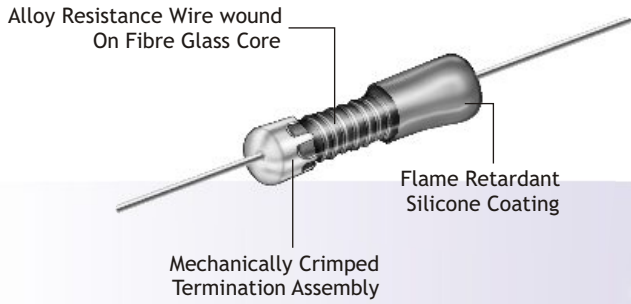




HFA SERIES

FIBRE GLASS SUBSTRATE
Silicone Coated Wire Wound Resistor
Shatter Proof
Low Cost Due To Automation

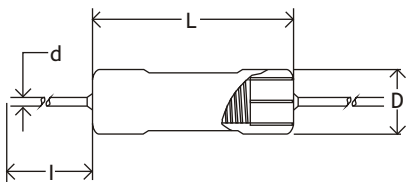


- Especially designed for kitchen appliances sector.
- High positive temperature co-efficient resistors available.
- Available uncoated if required.

APPLICABLE STANDARDS

IS - 8909 and IEC - Pub 266

PHYSICAL CONFIGURATION

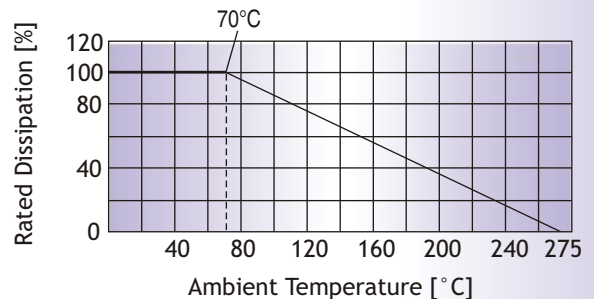


| HTR TYPE | POWER RATING at 70°C | DIMENSIONS (mm) | | | | RESISTANCE RANGE | | TYPICAL WT. PER PC (gms) |
|----------|----------------------|-----------------|-------------------|-----------------|--------------------|------------------|-----|--------------------------|
| | | L ₊₂ | D _{+0.5} | l ₊₂ | d _{+0.05} | min | max | |
| F-1 | 1W | 13.0 | 4.5 | 38 | 0.8 | R05 | 9K1 | 1.18 |
| F-2 | 2W | 16.0 | 4.5 | 38 | 0.8 | R07 | 12K | 1.20 |
| F-3 | 3W | 18.0 | 5.2 | 38 | 0.8 | R10 | 15K | 1.24 |
| F-5 | 5W | 30.0 | 5.2 | 38 | 0.8 | R10 | 27K | 1.73 |
| F-7 | 7W | 39.0 | 5.2 | 38 | 0.8 | R10 | 39K | 2.03 |
| F-9 | 9W | 45.0 | 5.2 | 38 | 0.8 | R10 | 47K | 2.22 |
| F-10 | 10W | 54.0 | 5.2 | 38 | 0.8 | R10 | 51K | 2.34 |

ELECTRICAL AND ENVIRONMENTAL CHARACTERISTICS / DATA

| Test | Performance Requirements |
|---|---|
| Resistance tolerance | ± 10% [K]; ± 5% [J] |
| Rated ambient temperature [see derating curve] | at 70°C full power dissipation |
| Temperature co-efficient | ± 100 ppm/ °C [> 100R] ± 80 ppm/ °C [< 100R] ± 450 ppm/ °C [< 1R0] |
| Short time overload | Max R ± [2%+R05] |
| Moisture Resistance | Max R ± [5%+R05] |
| Load life | Max R ± [5%+R05] |
| Ambient operating temperature range. | -40°C to +155°C |

DERATING CURVE





TYPICAL APPLICATIONS

HFA series of resistors were developed to provide a reliable but low cost alternative to the kitchen appliances sector where medium levels of power are required to be dissipated in the confines of a PCB and where close tolerance is not a criteria for selection.

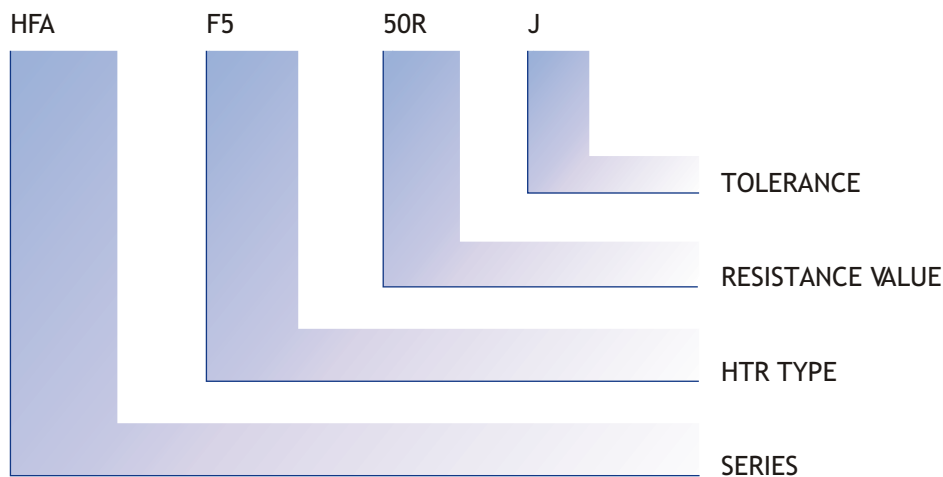
This cost reduction is achieved using a sophisticated automatic plant where the resistance element is uniformly wound onto a fibre glass core which is shatterproof.

Finally the sub-assembly is conformally coated with a special silicone cement coating which cannot drip even at high overloads or left uncoated if required by the customer.

Due to this method of construction, resistors in this series particularly above 7W should be suitably derated (about 35%) and a clearance of say about 5 mm from the PCB be kept if found necessary.

Depending on application the resistors leads may be tin plated Copper Weld[®] instead of tin plated copper.

ORDERING INFORMATION



Note :

- 1) The leads of the resistor can be bent and cut as per requirements for quick PCB mounting. Please send detailed drawings of the type of preforming required.
- 2) Types F1, F2 & F3 can be supplied in taped form. Please refer to [tape/ammo pack specifications](#). [Tape/Reel](#) on request.

The Words - "Applicable Standards" do not necessarily signify certification to that standard, however the tests mentioned are carried out on the broad based guidelines set out in these standards.