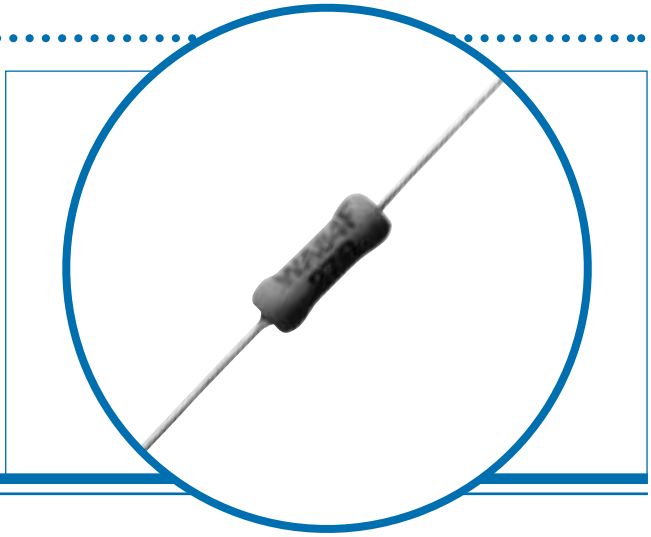
# Fusible Wirewound Resistors

TT electronics
Welwyn Components

WA84F

- **Predictable fusing characteristics**
- **Flameproof protection**
- **Suitable for pulse and fuse applications**



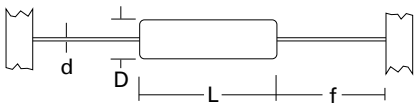
## Electrical Data

| | | WA84F |
|---|---|---|
| Power rating at 25°C | watts | 2.0 |
| Power rating at 70°C | watts | 1.6 |
| Resistance range | ohms | 0R2 to 30R |
| Limiting element voltage | volts | 100 |
| Isolation voltage | volts | 350 |
| TCR (-55°C to 155°C) | ppm/°C | ≤1 Ω:350 >1 Ω:100 |
| Resistance tolerance | % | 5 |
| Values | | E24 preferred |
| Thermal impedance | °C/watt | 90 |
| Ambient temperature range | °C | - 55 to 155 |

## Physical Data

**Dimensions (mm) and Weight (g)**

| Type | L max | D max | f min | d nom | PCB mounting centres | Min bend radius | Wt.nom |
|---|---|---|---|---|---|---|---|
| **WA84F** | 14.5 | 5.2 | 23.6 | 0.8 | 20.3 | 1.2 | 1.1 |




### Construction
A high purity ceramic substrate is assembled with interference fit end caps to which are welded the termination wires. The resistive element is wound on the substrate and welded to the caps. Cement protection is applied to the resistor body before marking with indelible ink.

### Marking
Resistors are colour coded with five bands. Four of the bands are used to indicate value and tolerance, with IEC62 colours being used. A fifth yellow band denotes fusibility.

### Solvent Resistance
The body protection and marking are resistant to all normal industrial cleaning solvents suitable for printed circuits.

### Terminations
**Material** Solder-coated copper wire

**Strength** The terminations meet the requirements of IEC 68.2.21.

**Solderability** The terminations meet the requirements of IEC 115-1, Clause 4. 17. 3. 2.

### Flammability
The resistor coating will not burn under any condition of applied temperature or component overload.

**General Note**
Welwyn Components reserves the right to make changes in product specification without notice or liability.
All information is subject to Welwyn's own data and is considered accurate at time of going to print.

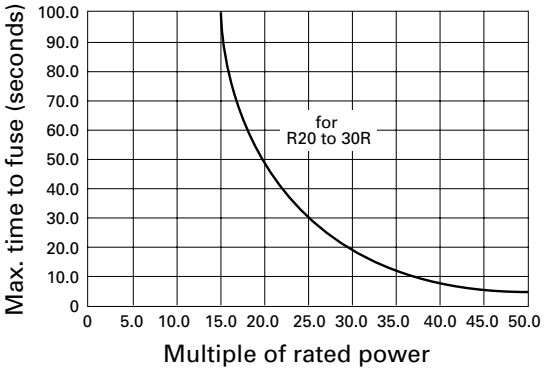
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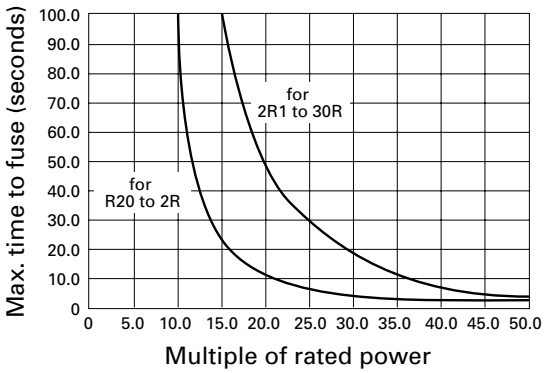
# Performance Data

| | | Maximum | Typical |
|---|---|---|---|
| Load at rated power: 1000 hrs at 25 or 70°C | Δ R% | 5.0 | 3.0 |
| Dry heat: 1000 hrs at 200°C | Δ R% | 5.0 | 3.0 |
| Derating from rated power at 25°C | | zero at 275°C | |
| Short term overload - 2.5 x rated power for 5 seconds | Δ R% | 5.0 | 2.0 |
| D.H.S.S. | Δ R% | 5.0 | 2.0 |
| Climatic | Δ R% | 5.0 | 1.0 |
| Pulse handling | | Data available by request | |

**Fusing characteristics for constant voltage**




**Fusing characteristics for constant current**




## Packaging

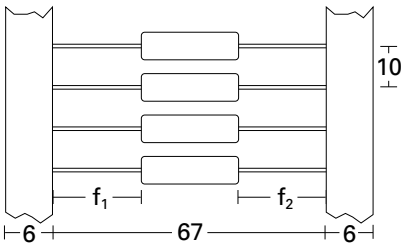
The standard method of packaging is taped in ammo packs. Can be provided on reels by request.

The critical dimensions are shown in figure 2.

Component wires will not protrude beyond the outside edge of the tapes.

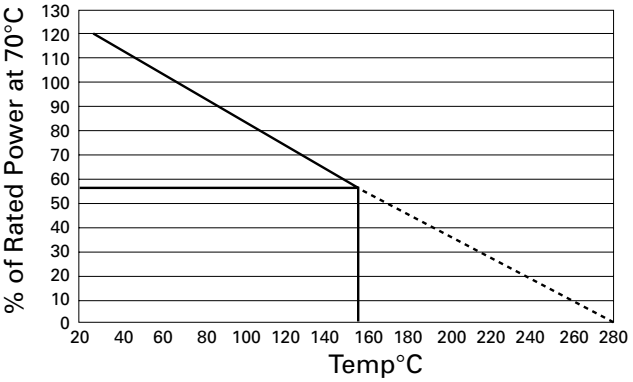
Alternative packaging available by special request are detailed in table opposite.

Figure 2




Body Location $f_1 - f_2 \leq 1.4$ mm

**WA84F Series Derating Curve**




## Standard Quantities Per Package

| Type | WA84F |
|---|---|
| Reel | 1000 |
| Large ammo pack | 1000 |

| Type | b | c |
|---|---|---|
| **WA84F** | 67 | 10 |

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