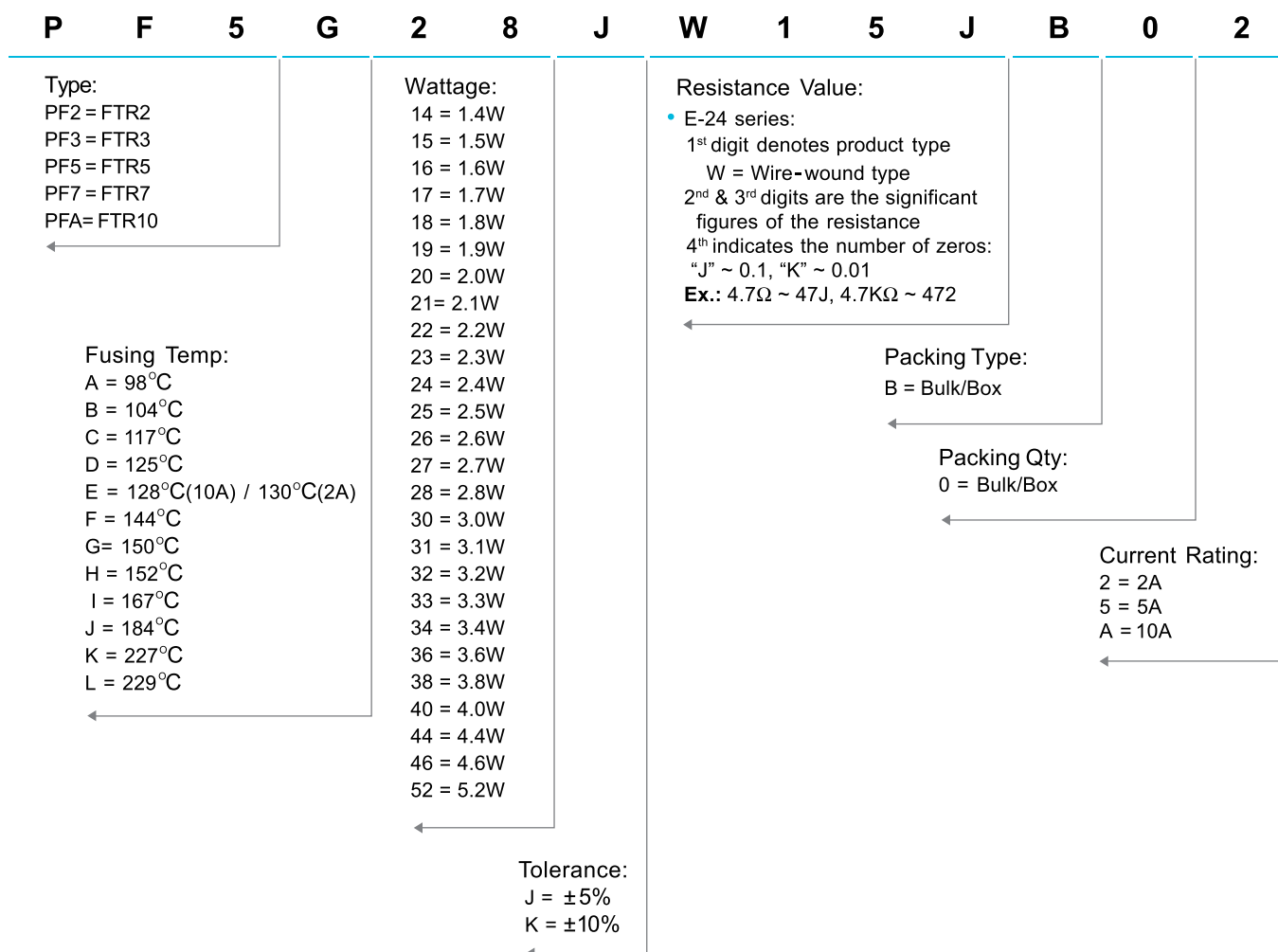


# Cement Thermal Fusible Resistors

## Performance Specification

|                                 |   |
|---------------------------------|---|
| Temperature Coefficient         | <20Ω: ±400PPM/°C; ≥20Ω: ±350PPM/°C  |
| Short Time Overload             | ±(5.0% + 0.05Ω)Max, with no evidence of mechanical damage.  |
| Dielectric Withstanding Voltage | No evidence of flashover, mechanical damage, arcing or insulation breakdown.                            |
| Terminal Strength               | No evidence of mechanical damage.   |
| Resistance to Soldering Heat    | ±(1.0% + 0.05Ω)Max, with no evidence of mechanical damage.  |
| Solderability                   | Min. 95% coverage.  |
| Temperature Cycling             | ±(2.0% + 0.05Ω)Max, with no evidence of mechanical damage.  |
| Humidity (Steady State)         | ±(5.0% + 0.05Ω)Max, with no evidence of mechanical damage.  |
| Load Life in Humidity           | Wire-wound: ±(5.0% + 0.05Ω)Max<br>Power Film: <100KΩ: ±(5.0% + 0.05Ω)Max<br>≥100KΩ: ±(10.0% + 0.05Ω)Max |
| Load life                       | Wire-wound: ±(5.0% + 0.05Ω)Max<br>Power Film: <100KΩ: ±(5.0% + 0.05Ω)Max<br>≥100KΩ: ±(10.0% + 0.05Ω)Max |

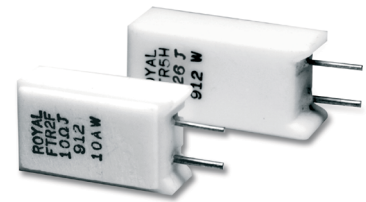
## Ordering Procedure: Ex.: FTR-5G 2.8W, +/-5%, 1.5Ω, 2A, B/B



# Cement Thermal Fusible Resistors

## Features

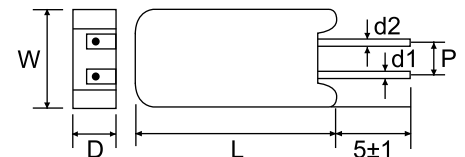
- Self extinguishing
- Excellent flame and moisture resistance
- Extremely small and mechanically safe
- Provides outstanding feature against surges
- Too low or too high ohmic values on Wire-wound & Power Film type can be supplied on a case to case basis
- Tolerance: 5%, 10%



## FTR Type

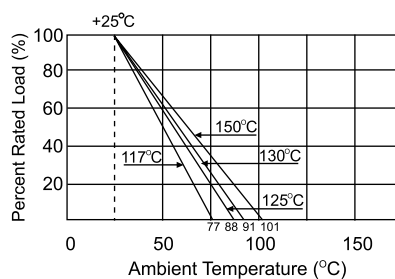
| Part No. | Type  | Dimension (mm) |       |       |       |     |           | Current Rating | Voltage Rating | Rated Functioning Temp. |      |      |      | Resistance Range (E-24 series) ±5%, ±10% |
|----------|-------|----------------|-------|-------|-------|-----|-----------|----------------|----------------|-------------------------|------|------|------|--|
|          |       | W ± 1          | D ± 1 | L ± 1 | P ± 1 | d1  | d2 ± 0.05 |                |                | C                       | D    | E    | G    |  |
|          |       | 117°C          | 125°C | 130°C | 150°C |     |           |                |                |                         |      |      |      |  |
| PF2      | FTR2  | 12             | 7     | 21    | 5     | 0.6 | 0.75      | 2A             | 250V           | 1.6W                    | 1.9W | 2.0W | 2.0W | 0.22Ω ~ 270Ω                             |
| PF3      | FTR3  | 12             | 8     | 26    | 5     | 0.6 | 0.75      |                |                | 1.7W                    | 2.0W | 2.1W | 2.3W | 0.27Ω ~ 680Ω                             |
| PF5      | FTR5  | 13             | 9     | 26    | 5     | 0.6 | 0.75      |                |                | 1.9W                    | 2.3W | 2.4W | 2.8W | 0.27Ω ~ 680Ω                             |
| PF7      | FTR7  | 13             | 9     | 38.5  | 5     | 0.6 | 0.75      |                |                | 2.2W                    | 2.7W | 2.8W | 3.2W | 0.68Ω ~ 1.2KΩ                            |
| PFA      | FTR10 | 16             | 13    | 35    | 7.5   | 0.6 | 0.75      |                |                | 2.6W                    | 3.2W | 3.3W | 3.8W | 1Ω ~ 1.8KΩ                               |

| Part No. | Type  | Dimension (mm) |       |       |       |           |           | Current Rating | Voltage Rating |
|----------|-------|----------------|-------|-------|-------|-----------|-----------|----------------|----------------|
|          |       | W ± 1          | D ± 1 | L ± 1 | P ± 1 | d1 ± 0.05 | d2 ± 0.05 |                |                |
| PF2      | FTR2  | 12             | 7     | 21    | 5     | 1.0       | 0.75      | 10A            | 250V           |
| PF3      | FTR3  | 12             | 8     | 26    | 5     | 1.0       | 0.75      |                |                |
| PF5      | FTR5  | 13             | 9     | 26    | 5     | 1.0       | 0.75      |                |                |
| PF7      | FTR7  | 13             | 9     | 38.5  | 5     | 1.0       | 0.75      |                |                |
| PFA      | FTR10 | 16             | 13    | 35    | 7.5   | 1.0       | 0.75      |                |                |



| Part No. | Type  | Fusing Temperature Code |       |       |       |       |       |       |       |       |       | Resistance Range (E-24 series) ±5%, ±10% |
|----------|-------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
|          |       | A                       | B     | C     | E     | F     | H     | I     | J     | K     | L     |  |
|          |       | 98°C                    | 104°C | 117°C | 128°C | 144°C | 152°C | 167°C | 184°C | 227°C | 229°C |  |
| PF2      | FTR2  | 1.4W                    | 1.6W  | 1.8W  | 2.0W  | 2.0W  | 2.0W  | 2.0W  | 2.0W  | 2.0W  | 2.0W  | 0.22Ω ~ 270Ω                             |
| PF3      | FTR3  | 1.5W                    | 1.7W  | 1.9W  | 2.1W  | 2.2W  | 2.5W  | 2.8W  | 3.0W  | 3.0W  | 3.0W  | 0.27Ω ~ 680Ω                             |
| PF5      | FTR5  | 1.7W                    | 1.9W  | 2.2W  | 2.4W  | 2.6W  | 3.1W  | 3.3W  | 3.8W  | 3.8W  | 3.8W  | 0.27Ω ~ 680Ω                             |
| PF7      | FTR7  | 2.0W                    | 2.2W  | 2.5W  | 2.8W  | 3.0W  | 3.4W  | 3.8W  | 4.4W  | 4.4W  | 4.4W  | 0.68Ω ~ 1.2KΩ                            |
| PFA      | FTR10 | 2.4W                    | 2.6W  | 3.0W  | 3.3W  | 3.6W  | 4.0W  | 4.6W  | 5.2W  | 5.2W  | 5.2W  | 1Ω ~ 1.8KΩ                               |

Derating Curve (current rating 2A)



Derating Curve (current rating 10A)

