



PTC THERMISTORS: TYPE PTF

OVER-CURRENT PROTECTION

DESCRIPTION:

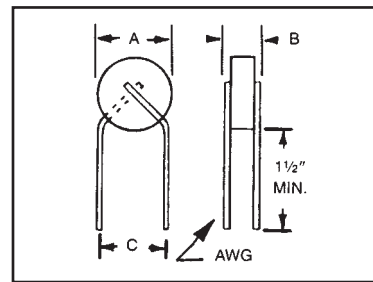
PTC disc thermistor for overcurrent and short-circuit protection



FEATURES:

- Low cost solid state fuse
- Available in a broad range of resistances, transition temperatures and voltage ratings
- Exhibits large positive increases in resistance with temperature
- Wide range of trip and non-trip currents; from 30mA to 2.3 amps
- Resistance/temperature characteristic is infinitely repeatable and has no hysteresis associated with its action
- Proven quality and reliability over many years of manufacture
- Standard options include protective coating and tape and reeled to EIA RS-468A

DIMENSIONS:



| Operating Voltage | R25°C (±20%) | Type | Minimum Switch Current | | Maximum No-Switch Current | | "H" Joules/°C | D.C. mW/°C | A (max) | | B (max) | | C ref. | | AWG No. |
|-------------------|--------------|-----------------------|------------------------|------|---------------------------|------|---------------|------------|---------|------|---------|-----|--------|-----|---------|
| | | | 0°C | 25°C | 25°C | 55°C | | | in. | mm. | in. | mm. | in. | mm. | |
| 5 | 0.5 | RL6505-0.5-110-5-PTF | 2.32 | 2.07 | 1.40 | 1.02 | 0.8 | 18 | 0.70 | 17.8 | 0.16 | 4.1 | 0.33 | 8.4 | 20 |
| 12 | 1.0 | RL5305-1.0-110-12-PTF | 1.45 | 1.29 | 0.87 | 0.64 | 0.6 | 14 | 0.60 | 15.2 | 0.15 | 3.8 | 0.33 | 8.4 | 22 |
| 12 | 2.5 | RL5305-2.5-110-12-PTF | 0.92 | 0.82 | 0.55 | 0.40 | 0.6 | 14 | 0.60 | 15.2 | 0.16 | 4.1 | 0.33 | 8.4 | 20 |
| 12 | 5.0 | RL4005-5.0-110-12-PTF | 0.55 | 0.49 | 0.33 | 0.24 | 0.3 | 10 | 0.45 | 11.4 | 0.15 | 3.8 | 0.25 | 6.4 | 24 |
| 12 | 10.0 | RL3005-10-110-12-PTF | 0.32 | 0.29 | 0.19 | 0.14 | 0.2 | 7 | 0.35 | 8.9 | 0.15 | 3.8 | 0.25 | 6.4 | 24 |
| 12 | 25.0 | RL3005-25-110-12-PTF | 0.20 | 0.18 | 0.12 | 0.09 | 0.2 | 7 | 0.35 | 8.9 | 0.15 | 3.8 | 0.25 | 6.4 | 24 |
| 12 | 1.0 | RL5004-1.0-120-12-PTF | 1.40 | 1.25 | 0.87 | 0.67 | 0.4 | 12.0 | 0.59 | 15.0 | 0.14 | 3.6 | 0.25 | 6.4 | 24 |
| 12 | 2.5 | RL3104-2.5-120-12-PTF | 0.65 | 0.58 | 0.40 | 0.31 | 0.2 | 6.5 | 0.41 | 10.4 | 0.14 | 3.6 | 0.15 | 3.8 | 24 |
| 12 | 5.0 | RL2204-5.0-120-12-PTF | 0.37 | 0.34 | 0.23 | 0.18 | 0.1 | 4.3 | 0.29 | 7.4 | 0.14 | 3.6 | 0.10 | 2.5 | 24 |
| 12 | 10.0 | RL1604-10-120-12-PTF | 0.22 | 0.20 | 0.13 | 0.10 | 0.04 | 2.9 | 0.23 | 5.8 | 0.14 | 3.6 | 0.10 | 2.5 | 24 |
| 12 | 25.0 | RL1004-25-120-12-PTF | 0.11 | 0.09 | 0.07 | 0.05 | 0.02 | 1.7 | 0.17 | 4.3 | 0.14 | 3.6 | 0.07 | 1.8 | 24 |
| 25 | 1.5 | RL7008-1.5-110-25-PTF | 1.34 | 1.19 | 0.81 | 0.59 | 1.50 | 18 | 0.75 | 19.1 | 0.18 | 4.6 | 0.33 | 8.4 | 20 |
| 25 | 3.0 | RL5008-3.0-110-25-PTF | 0.84 | 0.74 | 0.50 | 0.37 | 0.80 | 14 | 0.55 | 14.0 | 0.18 | 4.6 | 0.33 | 8.4 | 22 |
| 25 | 0.5 | RL6904-0.5-120-25-PTF | 2.41 | 2.16 | 1.49 | 1.16 | 0.8 | 17.8 | 0.75 | 19.1 | 0.14 | 3.6 | 0.33 | 8.4 | 22 |
| 25 | 1.0 | RL4904-1.0-120-25-PTF | 1.39 | 1.25 | 0.86 | 0.67 | 0.4 | 11.9 | 0.55 | 14.0 | 0.14 | 3.6 | 0.33 | 8.4 | 22 |
| 25 | 1.5 | RL4004-1.5-120-25-PTF | 1.00 | 0.90 | 0.62 | 0.48 | 0.3 | 9.2 | 0.46 | 11.7 | 0.14 | 3.6 | 0.25 | 6.4 | 24 |
| 25 | 3.0 | RL2804-3.0-120-25-PTF | 0.56 | 0.50 | 0.34 | 0.27 | 0.1 | 5.7 | 0.34 | 8.6 | 0.14 | 3.6 | 0.15 | 3.8 | 24 |
| 25 | 5.0 | RL2204-5.0-120-25-PTF | 0.37 | 0.34 | 0.23 | 0.18 | 0.1 | 4.3 | 0.28 | 7.1 | 0.14 | 3.6 | 0.15 | 3.8 | 24 |
| 50 | 5.0 | RL5506-5.0-110-50-PTF | 0.65 | 0.58 | 0.39 | 0.29 | 0.7 | 14 | 0.60 | 15.2 | 0.16 | 4.1 | 0.33 | 8.4 | 22 |
| 50 | 10.0 | RL4006-10-110-50-PTF | 0.39 | 0.34 | 0.23 | 0.17 | 0.4 | 10 | 0.45 | 11.4 | 0.17 | 4.3 | 0.25 | 6.4 | 24 |
| 50 | 25.0 | RL4508-25-110-50-PTF | 0.27 | 0.24 | 0.16 | 0.12 | 0.6 | 12 | 0.50 | 12.7 | 0.18 | 4.6 | 0.33 | 8.4 | 22 |
| 50 | 50.0 | RL4010-50-110-50-PTF | 0.19 | 0.17 | 0.11 | 0.08 | 0.6 | 12 | 0.45 | 11.4 | 0.20 | 5.1 | 0.33 | 8.4 | 22 |
| 50 | 100.0 | RL3810-100-110-50-PTF | 0.13 | 0.12 | 0.08 | 0.06 | 0.6 | 12 | 0.42 | 10.7 | 0.20 | 5.1 | 0.25 | 6.4 | 24 |
| 50 | 200.0 | RL3312-200-110-50-PTF | 0.08 | 0.07 | 0.05 | 0.04 | 0.5 | 9 | 0.40 | 10.2 | 0.23 | 5.8 | 0.25 | 6.4 | 20 |



PTC THERMISTORS: TYPE PTF

OVER-CURRENT PROTECTION

| Operating Voltage | R25°C (±20%) | Type | Minimum Switch Current | | Maximum No-Switch Current | | "H" Joules/°C | D.C. mW/°C | A (max) | | B (max) | | C ref. | | AWG No. |
|-------------------|--------------|------------------------|------------------------|------|---------------------------|------|---------------|------------|---------|------|---------|-----|--------|-----|---------|
| | | | 0°C | 25°C | 25°C | 55°C | | | in. | mm. | in. | mm. | in. | mm. | |
| 50 | 1.0 | RL7005-1.0-120-50-PTF | 1.76 | 1.58 | 1.09 | 0.84 | 1.1 | 19.0 | 0.75 | 19.1 | 0.15 | 3.8 | 0.33 | 8.4 | 22 |
| 50 | 2.5 | RL4505-2.5-120-50-PTF | 0.87 | 0.78 | 0.54 | 0.42 | 0.5 | 11.7 | 0.50 | 12.7 | 0.15 | 3.8 | 0.33 | 8.4 | 24 |
| 50 | 5.0 | RL3205-5.0-120-50-PTF | 0.48 | 0.43 | 0.30 | 0.23 | 0.2 | 7.1 | 0.37 | 9.4 | 0.15 | 3.8 | 0.25 | 6.4 | 24 |
| 50 | 10.0 | RL2505-10-120-50-PTF | 0.30 | 0.27 | 0.18 | 0.14 | 0.1 | 5.4 | 0.30 | 7.6 | 0.15 | 3.8 | 0.15 | 3.8 | 24 |
| 50 | 25.0 | RL1605-25-120-50-PTF | 0.14 | 0.13 | 0.09 | 0.07 | 0.1 | 3.2 | 0.21 | 5.3 | 0.15 | 3.8 | 0.15 | 3.8 | 24 |
| 50 | 50.0 | RL1604-50-120-50-PTF | 0.10 | 0.09 | 0.06 | 0.05 | 0.1 | 3.2 | 0.21 | 5.3 | 0.14 | 3.6 | 0.15 | 3.8 | 24 |
| 50 | 100.0 | RL1604-100-120-50-PTF | 0.07 | 0.06 | 0.04 | 0.03 | 0.1 | 3.2 | 0.21 | 5.3 | 0.14 | 3.6 | 0.15 | 3.8 | 24 |
| 50 | 200.0 | RL1604-200-120-50-PTF | 0.06 | 0.05 | 0.03 | 0.02 | 0.1 | 3.2 | 0.21 | 5.3 | 0.14 | 3.6 | 0.15 | 3.8 | 24 |
| 120 | 10.0 | RL7510-10-110-120-PTF | 0.55 | 0.49 | 0.33 | 0.24 | 2.2 | 20 | 0.80 | 20.3 | 0.23 | 5.8 | 0.33 | 8.4 | 24 |
| 120 | 20.0 | RL6010-20-110-120-PTF | 0.37 | 0.33 | 0.22 | 0.16 | 1.4 | 18 | 0.65 | 16.5 | 0.23 | 5.8 | 0.33 | 8.4 | 20 |
| 120 | 50.0 | RL4510-50-110-120-PTF | 0.19 | 0.17 | 0.11 | 0.08 | 0.8 | 12 | 0.50 | 12.7 | 0.20 | 5.1 | 0.33 | 8.4 | 20 |
| 120 | 100.0 | RL3510-100-110-120-PTF | 0.13 | 0.11 | 0.08 | 0.06 | 0.5 | 11 | 0.40 | 10.2 | 0.20 | 5.1 | 0.25 | 6.4 | 22 |
| 120 | 2.5 | RL8908-2.5-120-120-PTF | 1.32 | 1.18 | 0.82 | 0.63 | 2.7 | 26.7 | 0.94 | 23.9 | 0.18 | 4.6 | 0.33 | 8.4 | 22 |
| 120 | 5.0 | RL6308-5.0-120-120-PTF | 0.76 | 0.68 | 0.47 | 0.37 | 1.4 | 17.8 | 0.68 | 17.3 | 0.18 | 4.6 | 0.33 | 8.4 | 20 |
| 120 | 10.0 | RL4508-10-120-120-PTF | 0.44 | 0.40 | 0.27 | 0.21 | 0.7 | 12.0 | 0.50 | 12.7 | 0.18 | 4.6 | 0.33 | 8.4 | 22 |
| 120 | 20.0 | RL3008-20-120-120-PTF | 0.25 | 0.23 | 0.16 | 0.12 | 0.4 | 7.8 | 0.35 | 8.9 | 0.18 | 4.6 | 0.25 | 6.4 | 24 |
| 120 | 50.0 | RL2008-50-120-120-PTF | 0.14 | 0.13 | 0.09 | 0.07 | 0.1 | 6.0 | 0.25 | 6.4 | 0.18 | 4.6 | 0.15 | 3.8 | 24 |
| 120 | 100.0 | RL1706-100-120-120-PTF | 0.09 | 0.08 | 0.05 | 0.04 | 0.1 | 4.3 | 0.23 | 5.8 | 0.16 | 4.1 | 0.15 | 3.8 | 24 |
| 240 | 50.0 | RL6315-50-110-240-PTF | 0.23 | 0.21 | 0.14 | 0.10 | 2.3 | 18 | 0.65 | 16.5 | 0.27 | 6.9 | 0.33 | 8.4 | 18 |
| 240 | 100.0 | RL6315-100-110-240-PTF | 0.16 | 0.15 | 0.10 | 0.07 | 2.3 | 18 | 0.65 | 16.5 | 0.27 | 6.9 | 0.33 | 8.4 | 18 |
| 240 | 250.0 | RL6315-250-110-240-PTF | 0.10 | 0.09 | 0.06 | 0.05 | 2.3 | 18 | 0.65 | 16.5 | 0.27 | 6.9 | 0.33 | 8.4 | 18 |
| 240 | 2.5 | RL9912-2.5-120-240-PTF | 1.46 | 1.31 | 0.90 | 0.70 | 4.6 | 32.6 | 1.04 | 26.4 | 0.22 | 5.6 | 0.33 | 8.4 | 20 |
| 240 | 5.0 | RL8311-5.0-120-240-PTF | 0.95 | 0.85 | 0.59 | 0.46 | 3.5 | 27.7 | 0.88 | 22.4 | 0.21 | 5.3 | 0.33 | 8.4 | 20 |
| 240 | 10.0 | RL6011-10-120-240-PTF | 0.53 | 0.48 | 0.33 | 0.26 | 1.7 | 17.6 | 0.65 | 16.5 | 0.21 | 5.3 | 0.33 | 8.4 | 22 |
| 240 | 20.0 | RL4211-20-120-240-PTF | 0.31 | 0.28 | 0.19 | 0.15 | 0.9 | 12.1 | 0.47 | 11.9 | 0.21 | 5.3 | 0.33 | 8.4 | 24 |
| 240 | 50.0 | RL2611-50-120-240-PTF | 0.16 | 0.14 | 0.10 | 0.08 | 0.2 | 8.0 | 0.31 | 7.9 | 0.21 | 5.3 | 0.25 | 6.4 | 24 |
| 240 | 100.0 | RL2610-100-120-240-PTF | 0.11 | 0.10 | 0.07 | 0.05 | 0.2 | 8.0 | 0.31 | 7.9 | 0.20 | 5.1 | 0.25 | 6.4 | 24 |
| 240 | 250.0 | RL2610-250-120-240-PTF | 0.07 | 0.06 | 0.04 | 0.03 | 0.2 | 8.0 | 0.31 | 7.9 | 0.20 | 5.1 | 0.25 | 6.4 | 24 |
| 480 | 25.0 | RL6017-25-120-480-PTF | 0.35 | 0.32 | 0.22 | 0.17 | 2.4 | 19.1 | 0.65 | 16.5 | 0.27 | 6.9 | 0.33 | 8.4 | 22 |
| 480 | 50.0 | RL4217-50-120-480-PTF | 0.21 | 0.19 | 0.13 | 0.10 | 1.3 | 13.3 | 0.47 | 11.9 | 0.27 | 6.9 | 0.33 | 8.4 | 24 |
| 480 | 100.0 | RL3517-100-120-480-PTF | 0.13 | 0.12 | 0.08 | 0.06 | 0.8 | 10.7 | 0.41 | 10.4 | 0.27 | 6.9 | 0.25 | 6.4 | 24 |
| 480 | 200.0 | RL3517-200-120-480-PTF | 0.09 | 0.08 | 0.06 | 0.04 | 0.8 | 10.7 | 0.41 | 10.4 | 0.27 | 6.9 | 0.25 | 6.4 | 24 |

OPTIONS:

- Protective coating, replace "PTF" suffix with "PFC"
- Tape and reel, replace "PTF" suffix with "PFR"
- Coated and T&R, replace "PTF" suffix with "PFCR"
- Other resistances
- Other tolerances, other transition temperatures
- Alternate size and configurations
- Other voltage ratings