

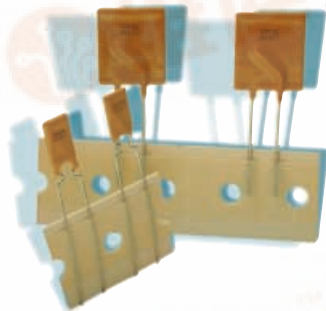
POLYFUSE® RESETTABLE FUSES



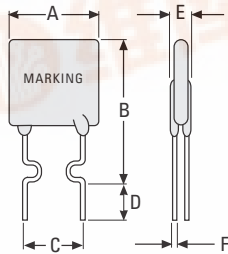
No. RLD30

Radial Leaded, 30V

Specifications



Dimensions (mm)



Standard

UL 1434 1st Edition
CSA C22.2 No.0, CSA TIL No. CA-3A

Approvals

cULus Recognized: File No. E 191571
TÜV: File No. R 50017428

Features

Low voltage (30Vdc) overcurrent protection
Low resistance and power dissipation
High hold currents
Low trip-to-hold current ratios
Internationally approved
Wide range of applications, including general electronics, computers, peripherals and automotive electronics

WebLinks

Data Sheet - latest version

www.wickmannusa.com/products/rl30.pdf

Approval Certificates

www.wickmannusa.com/approvals

Packaging

www.wickmannusa.com/pack

Packaging Code and Info

A: Bulk (Qty.: see table below)
F: Tape/Ampopack (Qty.: see table below)

Materials

Insulating Mat.: Cured Epoxy Polymer, UL 94V0
Round Pins: Copper alloy, tin plated

Device Surface Temperature in Tripped State

125°C Max.

Operating / Storage Temperature

-40°C to +85°C (see de-rating table)

Humidity Ageing

+85°C, 85% RH, 1000 hrs., ± 5% typical resistance change

Passive Ageing

+85°C, 1000 hrs., ± 5% typical resistance change

Thermal Shock

-40°C to +125°C, 10 times, ±10% typical resistance change (MIL-STD-202F, Method 107G)

Solvent Resistance

MIL-STD-202, Method 215F, no change

Solderability

Wave/Hand: 260°C, ≤ 3 sec.
(MIL-STD-202, Method 208E)

Marking

"P", Voltage, Current Code, Lot Code



| Dimensions Legend | | | | | | | Packaging Quantity | |
|-------------------|----------|----------|----------|----------|----------|-------|--------------------|------|
| Rating | A (max.) | B (max.) | C (typ.) | D (min.) | E (max.) | F (Ø) | Bulk | Tape |
| 900 mA / 30V | 7.4 | 12.2 | 5.1 | 7.6 | 3.0 | 0.51 | 500 | 2000 |
| 1.10 A / 30V | 7.4 | 14.2 | 5.1 | 7.6 | 3.0 | 0.51 | 500 | 2000 |
| 1.35 A / 30V | 8.9 | 13.5 | 5.1 | 7.6 | 3.0 | 0.51 | 500 | 2000 |
| 1.60 A / 30V | 8.9 | 15.2 | 5.1 | 7.6 | 3.0 | 0.51 | 500 | 2000 |
| 1.85 A / 30V | 10.2 | 15.7 | 5.1 | 7.6 | 3.0 | 0.51 | 500 | 2000 |
| 2.50 A / 30V | 11.4 | 18.3 | 5.1 | 7.6 | 3.0 | 0.51 | 500 | 2000 |
| 3.00 A / 30V | 11.4 | 17.3 | 5.1 | 7.6 | 3.0 | 0.81 | 500 | 2000 |
| 4.00 A / 30V | 14.0 | 20.1 | 5.1 | 7.6 | 3.0 | 0.81 | 100 | 1000 |
| 5.00 A / 30V | 14.0 | 24.9 | 10.2 | 7.6 | 3.0 | 0.81 | 100 | 1000 |
| 6.00 A / 30V | 16.5 | 24.9 | 10.2 | 7.6 | 3.0 | 0.81 | 100 | 1000 |
| 7.00 A / 30V | 19.1 | 26.7 | 10.2 | 7.6 | 3.0 | 0.81 | 100 | 1000 |
| 8.00 A / 30V | 21.6 | 29.2 | 10.2 | 7.6 | 3.0 | 0.81 | 100 | 1000 |
| 9.00 A / 30V | 24.1 | 29.7 | 10.2 | 7.6 | 3.0 | 0.81 | 100 | 1000 |

Permissible continuous operating current is ≤ 100% at ambient temperature of 20°C (68°F).

| Hold Current I_{hold} | Model Code | Trip Current I_{trip} (A) | Voltage Rating (Vdc) | max. Fault Current I_{max} (A) | max. Power Dissipation P_d (W) | max. Time-to-trip | | Resistance | | Approvals cULus TÜV |
|----------------------------|------------|--------------------------------|-------------------------|-------------------------------------|-------------------------------------|-------------------|------|-----------------------|------------------------|---------------------------|
| | | | | | | (A) | (s) | R_{min} min. (Ω) | R_{1max} max. (Ω) | |
| 900mA | P090U | 1.80 | 30 | 40 | 0.6 | 4.50 | 5.9 | 0.070 | 0.220 | • • |
| 1.10A | P110U | 2.20 | 30 | 40 | 0.7 | 5.50 | 6.6 | 0.050 | 0.170 | • • |
| 1.35A | P135U | 2.70 | 30 | 40 | 0.8 | 6.75 | 7.3 | 0.040 | 0.130 | • • |
| 1.60A | P160U | 3.20 | 30 | 40 | 0.9 | 8.00 | 8.0 | 0.030 | 0.110 | • • |
| 1.85A | P185U | 3.70 | 30 | 40 | 1.0 | 9.25 | 8.7 | 0.020 | 0.090 | • • |
| 2.50A | P250U | 5.00 | 30 | 40 | 1.2 | 12.50 | 10.3 | 0.020 | 0.070 | • • |
| 3.00A | P300U | 6.00 | 30 | 40 | 2.0 | 15.00 | 10.8 | 0.010 | 0.080 | • • |
| 4.00A | P400U | 8.00 | 30 | 40 | 2.5 | 20.00 | 12.7 | 0.010 | 0.050 | • • |
| 5.00A | P500U | 10.00 | 30 | 40 | 3.0 | 25.00 | 14.5 | 0.005 | 0.050 | • • |
| 6.00A | P600U | 12.00 | 30 | 40 | 3.5 | 30.00 | 16.0 | 0.005 | 0.040 | • • |
| 7.00A | P700U | 14.00 | 30 | 40 | 3.8 | 35.00 | 17.5 | 0.005 | 0.030 | • • |
| 8.00A | P800U | 16.00 | 30 | 40 | 4.0 | 40.00 | 18.8 | 0.005 | 0.020 | • • |
| 9.00A | P900U | 18.00 | 30 | 40 | 4.2 | 40.00 | 20.0 | 0.005 | 0.020 | • • |

I_{hold} = Hold current: maximum current device will pass without tripping in 20°C still air.
 I_{trip} = Trip current: minimum current at which the device will trip in 20°C still air.
 I_{max} = Maximum voltage device can withstand without damage at rated current (I_{max}).
 V_{max} = Maximum fault current device can withstand without damage at rated voltage (V_{max}).

P_d = Power dissipated from device when in the tripped state at 20°C still air.
 R_{min} = Minimum resistance of device in initial (un-soldered) state.
 R_{1max} = Maximum resistance of device at 20°C measured one hour after tripping.

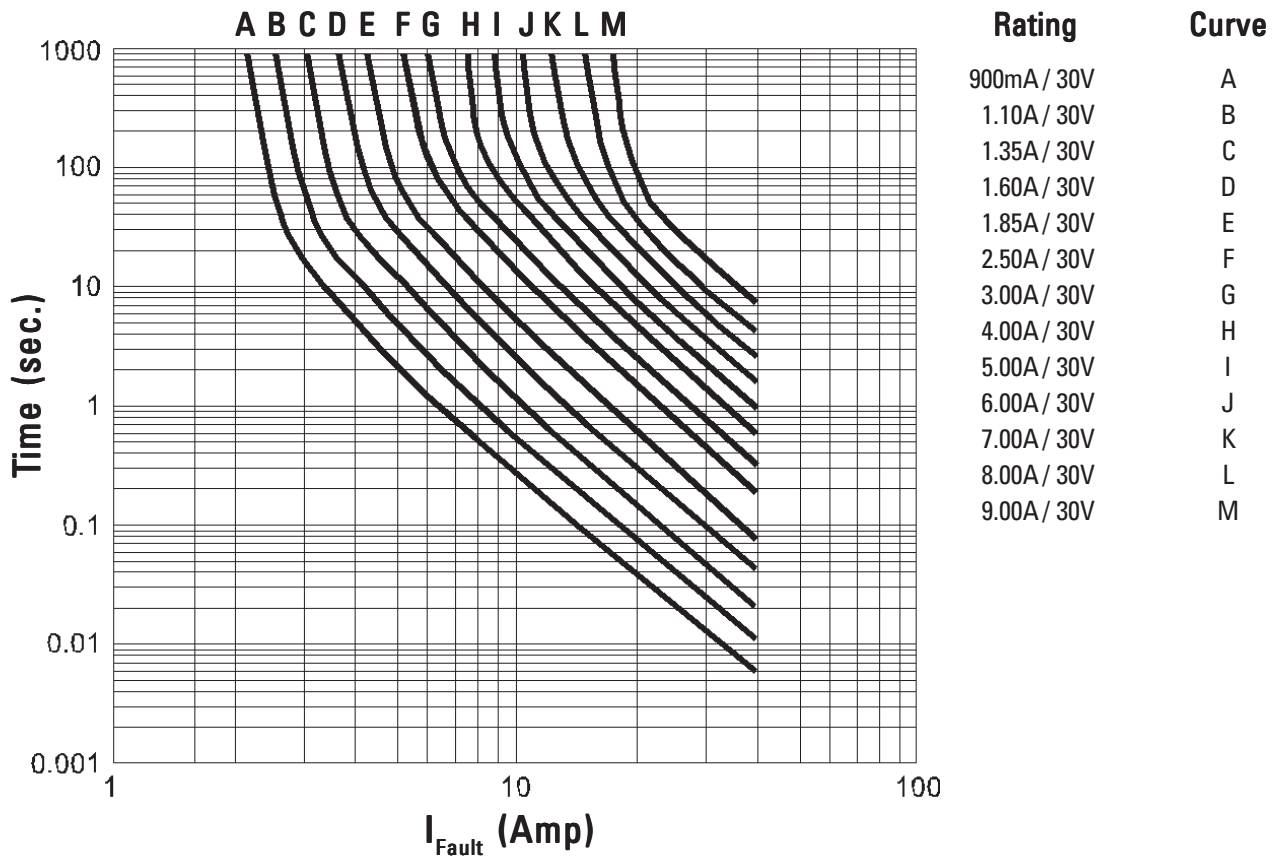
Caution: Operation beyond the specified rating may result in damage and possible arcing and flame.



| Qty. | Order-Number | Series | Model Code | Pack. Code |
|------|--------------|--------|------------|------------|
| | | RLD30 | | |

No. RLD30

Time-to-trip Characteristics



Thermal Derating Chart

| Rating | I _{hold} (Amp) / Ambient Operating Temperature | | | | | | | | |
|-------------|---|-------|-------|------|------|------|------|------|------|
| | -40°C | -20°C | 0°C | 23°C | 40°C | 50°C | 60°C | 70°C | 85°C |
| 900mA / 30V | 1.31 | 1.17 | 1.04 | 0.90 | 0.75 | 0.69 | 0.61 | 0.55 | 0.47 |
| 1.10A / 30V | 1.60 | 1.43 | 1.27 | 1.10 | 0.91 | 0.85 | 0.75 | 0.67 | 0.57 |
| 1.35A / 30V | 1.96 | 1.76 | 1.55 | 1.35 | 1.12 | 1.04 | 0.92 | 0.82 | 0.70 |
| 1.60A / 30V | 2.32 | 2.08 | 1.84 | 1.60 | 1.33 | 1.23 | 1.09 | 0.98 | 0.83 |
| 1.85A / 30V | 2.68 | 2.41 | 2.13 | 1.85 | 1.54 | 1.42 | 1.26 | 1.13 | 0.96 |
| 2.50A / 30V | 3.63 | 3.25 | 2.88 | 2.50 | 2.08 | 1.93 | 1.70 | 1.53 | 1.30 |
| 3.00A / 30V | 4.35 | 3.90 | 3.45 | 3.00 | 2.49 | 2.31 | 2.04 | 1.83 | 1.56 |
| 4.00A / 30V | 5.80 | 5.20 | 4.60 | 4.00 | 3.32 | 3.08 | 2.72 | 2.44 | 2.08 |
| 5.00A / 30V | 7.25 | 6.50 | 5.75 | 5.00 | 4.15 | 3.85 | 3.40 | 3.05 | 2.60 |
| 6.00A / 30V | 8.70 | 7.80 | 6.90 | 6.00 | 4.98 | 4.62 | 4.08 | 3.66 | 3.12 |
| 7.00A / 30V | 10.15 | 9.10 | 8.05 | 7.00 | 5.81 | 5.39 | 4.76 | 4.27 | 3.64 |
| 8.00A / 30V | 11.60 | 10.40 | 9.20 | 8.00 | 6.64 | 6.16 | 5.44 | 4.88 | 4.16 |
| 9.00A / 30V | 13.05 | 11.70 | 10.35 | 9.00 | 7.47 | 6.93 | 6.12 | 5.49 | 4.68 |