

LP75 series R-line Device

Features

- Radial leaded devices
- Cured, flame retardant epoxy polymer insulating material meets UL94 V-0 requirements
- Lead-free and compliant with the European Union RoHS Directive 2002/95/EC
- Agency Recognition: UL、CSA、TUV



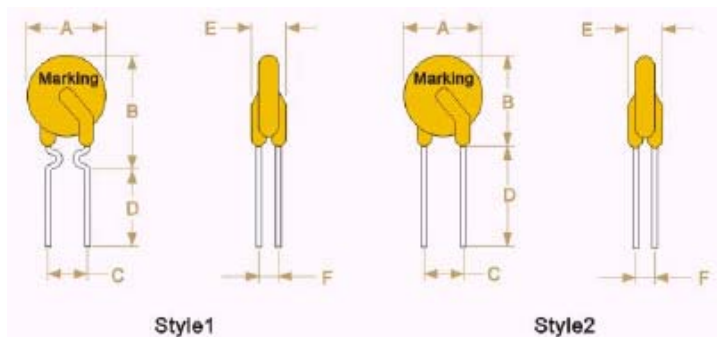
Applications

- Power supply
- High capability battery
- Motors and Wire harness
- USB ports
- Linear AC/DC adapters
- Transformers

Product Dimensions

| Part number | A | B | C | D | E | F | Lead | |
|-------------|------|------|------|------|------|------|-------|----------------|
| | Max. | Max. | Typ. | Min. | Max. | Typ. | Style | Size(ϕ) |
| LP75-020 | 7.0 | 11.2 | 5.1 | 7.6 | 3.1 | 1.1 | 1 | 0.6 |
| LP75-025 | 7.0 | 11.4 | 5.1 | 7.6 | 3.1 | 1.1 | 1 | 0.6 |
| LP75-030 | 7.6 | 13.4 | 5.1 | 7.6 | 3.1 | 1.1 | 1 | 0.6 |
| LP75-040 | 7.7 | 13.6 | 5.1 | 7.6 | 3.1 | 1.1 | 1 | 0.6 |
| LP75-050 | 7.9 | 13.7 | 5.1 | 7.6 | 3.1 | 1.1 | 1 | 0.6 |
| LP75-065 | 9.1 | 14.5 | 5.1 | 7.6 | 3.1 | 1.1 | 1 | 0.6 |
| LP75-075 | 10.3 | 15.5 | 5.1 | 7.6 | 3.1 | 1.1 | 1 | 0.6 |
| LP75-090 | 11.3 | 16.5 | 5.1 | 7.6 | 3.1 | 1.1 | 1 | 0.6 |
| LP75-110 | 12.4 | 16.7 | 5.1 | 7.6 | 3.1 | 1.4 | 1 | 0.8 |
| LP75-135 | 14.0 | 17.6 | 5.1 | 7.6 | 3.1 | 1.4 | 2 | 0.8 |
| LP75-160 | 15.9 | 19.7 | 5.1 | 7.6 | 3.1 | 1.4 | 2 | 0.8 |
| LP75-185 | 16.9 | 22.9 | 5.1 | 7.6 | 3.1 | 1.4 | 2 | 0.8 |
| LP75-250 | 20.0 | 23.5 | 10.2 | 7.6 | 3.1 | 1.4 | 2 | 0.8 |
| LP75-300 | 23.0 | 27.4 | 10.2 | 7.6 | 3.1 | 1.4 | 2 | 0.8 |
| LP75-375 | 27.0 | 32.5 | 10.2 | 7.6 | 3.1 | 1.4 | 2 | 0.8 |

Marking system



* Lead materials: Tin-plate metal wire.

Electrical Characteristics

| Part number | I_H | I_T | T_{trip} | V_{max} | I_{max} | Pd_{typ} | R_{min} | R_{max} |
|-------------|-------|-------|------------|-----------|-----------|------------|--------------|--------------|
| | (A) | (A) | (S) | (V) | (A) | (W) | (Ω) | (Ω) |
| LP75-020 | 0.20 | 0.40 | 3.6 | 75 | 40 | 0.52 | 1.50 | 2.84 |
| LP75-025 | 0.25 | 0.50 | 3.2 | 75 | 40 | 0.52 | 1.00 | 1.95 |
| LP75-030 | 0.30 | 0.60 | 3.0 | 75 | 40 | 0.59 | 0.76 | 1.36 |
| LP75-040 | 0.40 | 0.80 | 3.8 | 75 | 40 | 0.66 | 0.50 | 0.86 |
| LP75-050 | 0.50 | 1.00 | 4.0 | 75 | 40 | 0.80 | 0.41 | 0.77 |
| LP75-065 | 0.65 | 1.30 | 5.3 | 75 | 40 | 0.90 | 0.27 | 0.48 |
| LP75-075 | 0.75 | 1.50 | 6.3 | 75 | 40 | 0.95 | 0.18 | 0.41 |
| LP75-090 | 0.90 | 1.80 | 7.2 | 75 | 40 | 1.00 | 0.14 | 0.31 |
| LP75-110 | 1.10 | 2.20 | 8.2 | 75 | 40 | 1.51 | 0.14 | 0.25 |
| LP75-135 | 1.35 | 2.70 | 9.6 | 75 | 40 | 1.71 | 0.12 | 0.20 |
| LP75-160 | 1.60 | 3.20 | 11.4 | 75 | 40 | 1.98 | 0.09 | 0.15 |
| LP75-185 | 1.85 | 3.70 | 12.6 | 75 | 40 | 2.10 | 0.08 | 0.13 |
| LP75-250 | 2.50 | 5.00 | 15.6 | 75 | 40 | 2.50 | 0.05 | 0.10 |
| LP75-300 | 3.00 | 6.00 | 19.8 | 75 | 40 | 2.80 | 0.04 | 0.07 |
| LP75-375 | 3.75 | 7.50 | 24.0 | 75 | 40 | 3.20 | 0.03 | 0.06 |

I_H =Hold current: maximum current at which the device will not trip at 25°C still air.

I_T =Trip current: minimum current at which the device will always trip at 25°C still air.

$V_{max\ interrupt}$ =Maximum interrupt voltage device can withstand without damage at rated current.

I_{max} =Maximum fault current device can withstand without damage at rated voltage.

T_{trip} =Maximum time to trip at assigned current.

Pd_{typ} =Typical power dissipation: typical amount of power dissipated by the device when in state air environment.

R_{min} =Minimum device resistance at 25°C prior to tripping.

R_{max} =Maximum device resistance at 25°C prior to tripping.

Thermal Derating Chart-Ih(A)

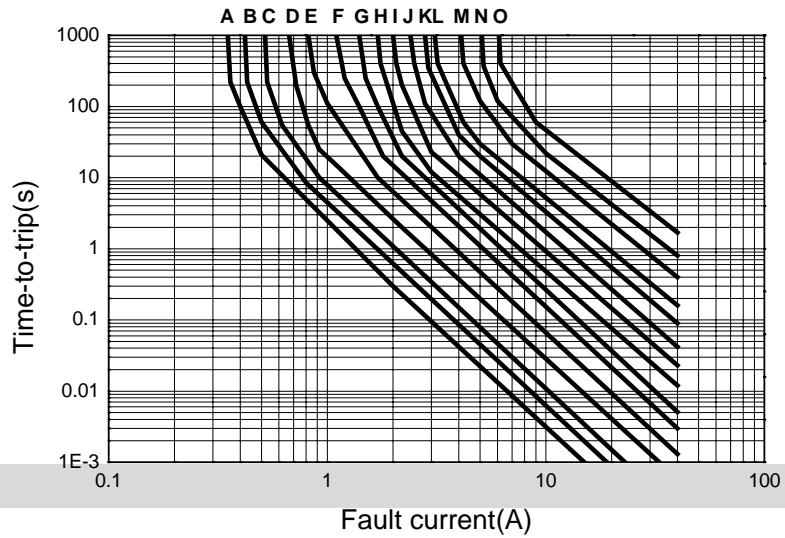
| Part number | Maximum ambient operating temperatures(°C) | | | | | | | | |
|-------------|--|------|------|------|------|------|------|------|------|
| | -40 | -20 | 0 | 25 | 40 | 50 | 60 | 70 | 85 |
| LP75-020 | 0.34 | 0.29 | 0.25 | 0.20 | 0.16 | 0.14 | 0.13 | 0.10 | 0.07 |
| LP75-025 | 0.42 | 0.36 | 0.31 | 0.25 | 0.20 | 0.18 | 0.16 | 0.12 | 0.09 |
| LP75-030 | 0.52 | 0.44 | 0.38 | 0.30 | 0.24 | 0.22 | 0.18 | 0.14 | 0.10 |
| LP75-040 | 0.66 | 0.57 | 0.50 | 0.40 | 0.32 | 0.29 | 0.24 | 0.20 | 0.14 |
| LP75-050 | 0.83 | 0.74 | 0.63 | 0.50 | 0.41 | 0.36 | 0.30 | 0.25 | 0.18 |
| LP75-065 | 1.10 | 0.95 | 0.82 | 0.65 | 0.53 | 0.47 | 0.40 | 0.33 | 0.24 |
| LP75-075 | 1.26 | 1.11 | 0.95 | 0.75 | 0.61 | 0.54 | 0.45 | 0.39 | 0.28 |
| LP75-090 | 1.52 | 1.30 | 1.15 | 0.90 | 0.73 | 0.65 | 0.55 | 0.47 | 0.33 |
| LP75-110 | 1.82 | 1.60 | 1.35 | 1.10 | 0.89 | 0.79 | 0.65 | 0.55 | 0.40 |
| LP75-135 | 2.20 | 1.91 | 1.65 | 1.35 | 1.09 | 0.96 | 0.80 | 0.68 | 0.50 |
| LP75-160 | 2.60 | 2.30 | 1.95 | 1.60 | 1.30 | 1.13 | 1.00 | 0.80 | 0.60 |
| LP75-185 | 3.00 | 2.63 | 2.30 | 1.85 | 1.50 | 1.33 | 1.12 | 0.92 | 0.67 |
| LP75-250 | 4.05 | 3.58 | 3.02 | 2.50 | 2.02 | 1.80 | 1.55 | 1.30 | 0.90 |
| LP75-300 | 4.82 | 4.16 | 3.62 | 3.00 | 2.43 | 2.16 | 1.85 | 1.50 | 1.09 |
| LP75-375 | 6.02 | 5.19 | 4.50 | 3.75 | 3.02 | 2.68 | 2.30 | 1.95 | 1.39 |

Test Procedures And Requirements

| Test | Test Conditions | Accept/Reject Criteria |
|-----------------|-------------------------------------|-------------------------------|
| Resistance | In still air @ 25°C | $R_{min} \leq R \leq R_{max}$ |
| Time to Trip | Specified current, V_{max} , 25°C | $T \leq$ maximum Time to Trip |
| Hold Current | 30min, at I_H | No trip |
| Trip Cycle Life | V_{max} , I_{max} , 100cycles | No arcing or burning |
| Trip Endurance | V_{max} , 24hours | No arcing or burning |

Typical Time-to-trip Charts at 25°C

- A=LP75-020
- B=LP75-025
- C=LP75-030
- D=LP75-040
- E=LP75-050
- F=LP75-065
- G=LP75-075
- H=LP75-090
- I = LP75-110
- J =LP75-135
- K=LP75-160
- L=LP75-185
- M=LP75-250
- N=LP75-300
- O=LP75-375



Package Information

Bulk:

- LP75-020~LP75-185.....1000pcs per bag
- LP75-250~LP75-375..... 500pcs per bag

Tape & Reel:

- LP75-020~LP75-090.....3000pcs per reel

Notices:

The devices are intended for protection against occasional overcurrent or overtemperature fault conditions and should not be used when repeated fault conditions are anticipated.

Operation beyond maximum ratings or improper use may result in device damage and possible electrical arcing and flame.