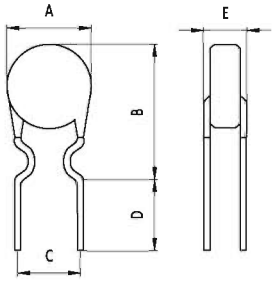
# Type R60 Series

RoHS Pb

## *Polymeric Positive Temperature Coefficiert*

(PPTC)




## Approvals

| | |
|---|---|
| UL Recognized | 0.1A~3.75A |
| CSA | 0.1A~3.75A |
| TUV | 0.1A~3.75A |

## Agency File Numbers

UL E201504
CSA 216999
TUV B 02 11 43486

## Electrical Characteristics

**Operating/Storage Temperature**
-40°C to +85°C

**Maximum Device Surface Temperature**
In Tripped State 125°C

**Passive Aging**
+85°C, 1000Hours, ±5% Typical Resistance Change

**Humidity Aging**
+85°C, 85%R.H., 1000Hours, ±5% Typical Resistance Change

**Thermal Shock:**
+85°C to -40°C, ±10% Typical Resistance Change

**Vibration**
MIL-STD-202C, Method 201, No Change

## Physical Dimensions (Unit: mm/inch)

| Modle | A Max. | B Max. | C Typ. | D Min. | E Max. | F Max. | Lead Style |
|---|---|---|---|---|---|---|---|
| R60-010 | 7.4/0.29 | 12.7/0.50 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.0/0.04 | Kink |
| R60-017 | 7.4/0.29 | 12.7/0.50 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.7/0.07 | Kink |
| R60-020 | 7.4/0.29 | 12.7/0.50 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.0/0.04 | Kink |
| R60-025 | 7.4/0.29 | 12.7/0.50 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.0/0.04 | Kink |
| R60-030 | 7.4/0.29 | 13.0/0.51 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.0/0.04 | Kink |
| R60-040 | 7.6/0.30 | 13.5/0.53 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.2/0.05 | Kink |
| R60-050 | 7.9/0.31 | 13.7/0.54 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.2/0.05 | Kink |
| R60-065 | 9.7/0.38 | 14.5/0.57 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.5/0.06 | Kink |
| R60-075 | 10.4/0.41 | 15.2/0.60 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.5/0.06 | Kink |
| R60-090 | 11.7/0.46 | 15.8/0.62 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.5/0.06 | Kink |
| R60-110 | 13.0/0.51 | 18.0/0.71 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.2/0.05 | Straight |
| R60-135 | 14.5/0.57 | 19.6/0.77 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.2/0.05 | Straight |
| R60-160 | 16.3/0.64 | 21.3/0.84 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.5/0.06 | Straight |
| R60-185 | 17.8/0.70 | 22.9/0.90 | 5.1/0.20 | 7.6/0.3 | 3.1/0.12 | 1.5/0.06 | Straight |
| R60-250 | 21.3/0.84 | 26.4/1.04 | 10.2/0.40 | 7.6/0.3 | 3.1/0.12 | 1.7/0.07 | Straight |
| R60-300 | 24.9/0.98 | 30.0/1.18 | 10.2/0.40 | 7.6/0.3 | 3.1/0.12 | 2.0/0.08 | Straight |
| R60-375 | 28.5/1.12 | 33.5/1.32 | 10.2/0.40 | 7.6/0.3 | 3.1/0.12 | 2.0/0.08 | Straight |

## Physical Characteristics

**Materials**
R60-010: Tin-plated nickel-copper alloy, 0.205mm² (24AWG), ø0.51mm(0.020 in).
R60-017~040: Tin-plated copper-clad steel, 0.205mm² (24AWG), ø0.51mm(0.020 in).
R60-050~090: Tin-plated copper , 0.205mm² (24AWG), ø0.51mm(0.020 in).
R60-110 ~ 375: Tin-plated copper , 0.52mm² (20AWG), ø0.81mm(0.032 in).

**Packaging**
In Bulk: 500 pcs per box.
On Tap: Ammo pack

| | | | |
|---|---|---|---|
| R60-010~R60-090 | 3000 PCS, | R60-110~R60-185 | 1500 PCS |
| R60-017 | 2500 PCS, | R60-250~R60-375 | - |

## Electrical Properties

| Modle | $I_{hold}$ (A) | $I_{trip}$ (A) | $V_{max}$ (Vdc) | $I_{max}$ (A) | $P_d$ Typ. (W) | Maximum Time To Trip Current (A) | Maximum Time To Trip Time (Sec) | Resistance Rimin (Ω) | Resistance Rimax (Ω) | Resistance R1max (Ω) |
|---|---|---|---|---|---|---|---|---|---|---|
| R60-010 | 0.10 | 0.20 | 60 | 40 | 0.38 | 0.50 | 4.0 | 2.50 | 4.50 | 7.50 |
| R60-017 | 0.17 | 0.34 | 60 | 40 | 0.48 | 0.85 | 3.0 | 2.50 | 5.21 | 8.00 |
| R60-020 | 0.20 | 0.40 | 60 | 40 | 0.41 | 1.00 | 2.2 | 1.83 | 2.75 | 4.40 |
| R60-025 | 0.25 | 0.50 | 60 | 40 | 0.45 | 1.25 | 2.5 | 1.00 | 1.95 | 3.00 |
| R60-030 | 0.30 | 0.60 | 60 | 40 | 0.49 | 1.50 | 3.0 | 0.88 | 1.33 | 2.10 |
| R60-040 | 0.40 | 0.80 | 60 | 40 | 0.56 | 2.00 | 3.8 | 0.55 | 0.86 | 1.29 |
| R60-050 | 0.50 | 1.00 | 60 | 40 | 0.77 | 2.50 | 4.0 | 0.50 | 0.77 | 1.17 |
| R60-065 | 0.65 | 1.30 | 60 | 40 | 0.88 | 3.25 | 5.3 | 0.31 | 0.48 | 0.72 |
| R60-075 | 0.75 | 1.50 | 60 | 40 | 0.92 | 3.75 | 6.3 | 0.25 | 0.40 | 0.60 |
| R60-090 | 0.90 | 1.80 | 60 | 40 | 0.99 | 4.50 | 7.2 | 0.20 | 0.31 | 0.47 |
| R60-110 | 1.10 | 2.20 | 60 | 40 | 1.50 | 5.50 | 8.2 | 0.15 | 0.25 | 0.38 |
| R60-135 | 1.35 | 2.70 | 60 | 40 | 1.70 | 6.75 | 9.6 | 0.12 | 0.19 | 0.30 |
| R60-160 | 1.60 | 3.20 | 60 | 40 | 1.90 | 8.00 | 11.4 | 0.09 | 0.14 | 0.22 |
| R60-185 | 1.85 | 3.70 | 60 | 40 | 2.10 | 9.25 | 12.6 | 0.08 | 0.12 | 0.19 |
| R60-250 | 2.50 | 5.00 | 60 | 40 | 2.50 | 12.50 | 15.6 | 0.05 | 0.08 | 0.13 |
| R60-300 | 3.00 | 6.00 | 60 | 40 | 2.80 | 15.00 | 19.8 | 0.04 | 0.06 | 0.10 |
| R60-375 | 3.75 | 7.50 | 60 | 40 | 3.20 | 18.75 | 24.0 | 0.03 | 0.05 | 0.08 |

**I**hold = Hold Current : maximum current device will sustain for 4 hours without tripping in 25ºC XC still air.
**I**trip = Trip Current : minimum current at which the device will trip in 25ºC XC still air.
**V**max = Maximum voltage device can withstand without damage at rated current (**I**max).
**I**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 25ºC XC still air.
**Ri**min/max = Minimum/Maximum resistance of device in initial (un-soldered) state.
**R1**max = Maximum resistance of device at 25ºC XC measured one hour after tripping.
**CAUTION :** Operation beyond the specified ratings may result in damage and possible arcing and flame.



*Conquer Electronics Co., Ltd.*
No. 26, Wucyuan 5th Road, Wugu Township, Taipei County 248, Taiwan. TEL: **886-2-8990-2189** (Rep.) FAX: **886-2-8990-2577**
E-mail: **conqfuse@ms62.hinet.net** Homepage: **http://www.conquer.com.tw**