# Polymer PTC Resettable Fuse JK600 Series

#### Features:

- ♦ Radial leaded Devices
- ♦ Cured, flame retardant epoxy polymer insulating material meets UL94V-0
- ♦ Rohs compliant and lead-free





# **Product Dimensions**



# Fig1 JK600 Series

| Model      |        | Dimensions | (mm)   | Lead material | Shape            |     |
|------------|--------|------------|--------|---------------|------------------|-----|
| Widdel     | A(max) | B(max)     | C(max) | D(typ)        | Tinned matel(mm) | Fig |
| JK600-110U | 15     | 15         | 5.5    | 5.1           | 22AWG/Φ0.6       | 1   |
| JK600-150U | 15     | 15         | 5.5    | 5.1           | 22AWG/Φ0.6       | 1   |
| JK600-160U | 15     | 15         | 5.5    | 5.1           | 22AWG/Φ0.6       | 1   |

Note: 1) Dimensions A, B, C is the maximum size, D values are typical tolerance of  $\pm 0.75$ mm.

### Thermal Derating Chart-IH (A)

| Model                        | Maximum ambient operating temperatures (°C) |       |      |      |      |      |      |      |      |      |
|------------------------------|---|-------|------|------|------|------|------|------|------|------|
|                              | -40°C                                       | -20°C | 0°C  | 25°C | 30°C | 40°C | 50°C | 60°C | 70°C | 85°C |
| JK600 series                 | 147%  | 138%  | 119% | 100% | 92%  | 83%  | 73%  | 64%  | 55%  | 42%  |
| Trained Time to this at 25%C |   |       |      |      |      |      |      |      |      |      |

Typical Time-to-trip at 25°C

#### Electrical Characteristic



#### JK600 Series

| Model Ihold | Ihold (A) | Ihald (A) Itnin(mA) | Marca intermed (M) | Image (A) | D               | Maximum Time to Trip |         | Resistance(Ω)                      |  |
|-------------|-----------|---------------------|--------------------|-----------|-----------------|----------------------|---------|------------------------------------|--|
| Model       | mold (A)  | Itrip(mA)           | Vmax interrupt (V) | Imax (A)  | $P_{d \max(W)}$ | Current (A)          | Time(S) | R <sub>min-</sub> R <sub>max</sub> |  |
| JK600-110U  | 0.11      | 0.22                | 600                | 3         | 1.0             | 1.0                  | 8       | 6-16                               |  |
| JK600-150U  | 0.15      | 0.30                | 600                | 3         | 1.0             | 1.0                  | 9       | 5-14                               |  |
| JK600-160U  | 0.16      | 0.32                | 600                | 3         | 1.0             | 1.0                  | 10      | 4-12                               |  |

 $I_{\text{H}}\text{=}\text{Hold}$  current:maximum current at which the device will not trip at 25  $^\circ\!\!\!\text{C}$  still air.

I<sub>T</sub>=Trip current:minimum current at which the device will nalways at 25  $^\circ \! \mathbb C$  still air.

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

I<sub>max</sub>=Maximum fault current device can withstand tithout damage at rated voltage.

T<sub>trip</sub>=Maximum time to trip(s) at assigned current.

P<sub>d</sub>=Typical power dissipation:typical amount of power dissipated by the decice when in state air environment.

 $R_{min} {=} Minimum$  device resistance at 25  $^\circ\! {\rm C}$  prior to tripping.

 $R_{max}\!\!=\!\!Maximum$  device resistance at 25  $^\circ\!\mathrm{C}$  prior to tripping.

# Marking System



#### **Environmental Specifications**

| Test                  | Conditions               | Resistance change  |  |  |
|-----------------------|--------------------------|--------------------|--|--|
| Passive aging         | +85°C, 1000hrs           | ±8% typical        |  |  |
| Humidity aging        | +85°C, 85%R.H.1000hrs    | $\pm 8\%$ typical  |  |  |
| Thermal shock         | +125°C to -55°C, 10times | $\pm 12\%$ typical |  |  |
| Resistance to solvent | MIL-STD-202, Method 215  | No change          |  |  |
| Vibration             | MIL-STD-202, Method 201  | No change          |  |  |

#### Solder reflow conditions



Wave Soldering: Soldering Temperature:260°C~270°C Soldering Time:≤3sec. Soldering Position: Resettable fuse wire and the bottom ≥ 6mm. Manual soldering: Soldering Temperature:250°C~280°C Soldering Time: ≤3sec. Soldering Position: Resettable fuse wire and the bottom ≥ 6mm.

Packaging and Storage Bag quantity JK600-110U~JK600-160U200 Pcs/Bag

#### Storage

The maximum ambient temperature shall not exceed  $40^{\circ}$ C.Storage temperatures higher than  $40^{\circ}$ C could result in the deformation of packaging materials. The maximum relative humidity recommended for storage is 70%. High humidity with high temperature can accelerate the oxidation the oxidation of the solder plating on the termination and reduce the solderability of the components.sealed plastic bags with desiccant shall be used to teduce the oxidation of the termination and shall only be opened prior to use the products shall not be stored in areas where harmful gases containing sulfu of chlorine are present.

# Warning:

Please read this specification before use the product  $_{\circ}$ 

Using of this product must be sure to follow the requirement of this specification, operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and flame.

PPTC resettable fuses are intended for occasional over current protection. Application for repeated over current condition or prolonged trip are not anticipated.

Please avoid contact of PPTC resettable fuses with chemical solvent. Prolonged contact will damage the device performance. You are requested not to use our product deviating from the agreed specifications.