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JDT FUSE
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PRODUCT DATASHEET

Miniature Fuse

# JFS Series, Time-Lag Fuse

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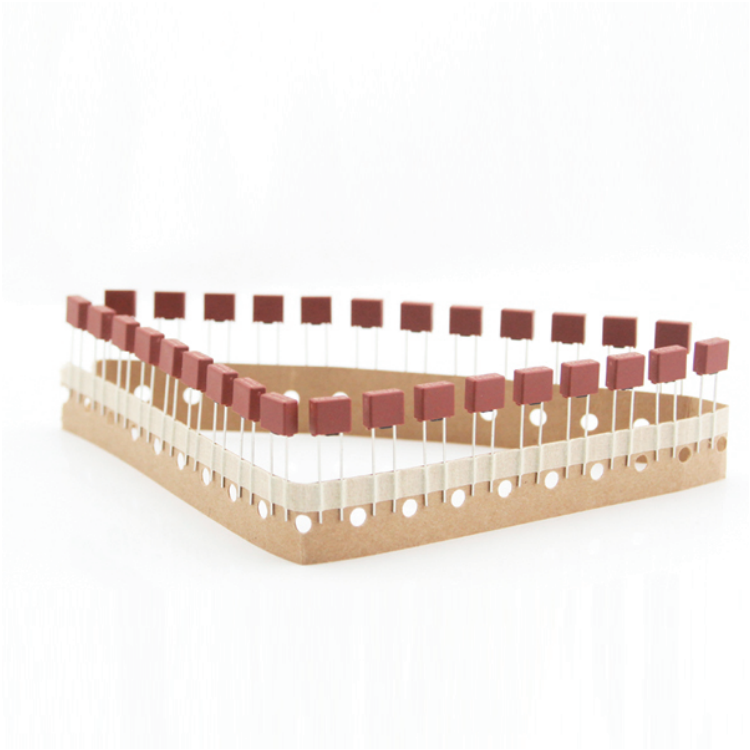


## Description

Time-Lag type, 250V rated, designed in accordance to IEC 60127-3.

## Features

- Lead-free
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- 100A breaking capacity
- Internationally approved
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Halogen free

## Applications

- Battery Chargers
- Consumer Electronics
- Power supplies
- Industrial Controllers

## Agency Approvals

| Agency | File Number | Ampere Range |
|---|---|---|
| c UL us | PENDING | 800mA - 6.3A |

## Electrical Characteristics for Series

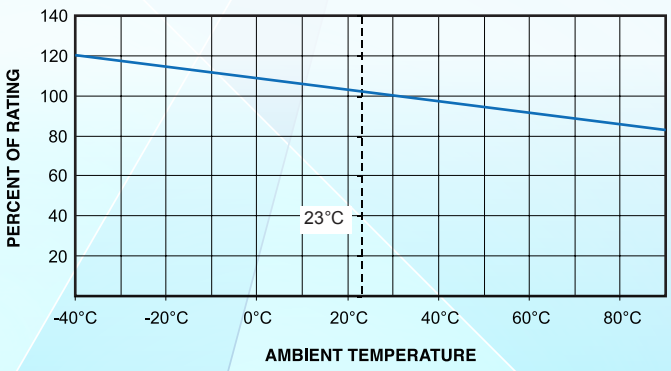
| % of Ampere | Opening Time |
|---|---|
| 150% | 1 Hour, **Min.** |
| 210% | 120 s, **Max.** |
| 275% | 400 ms, **Min.** ;<br>10 Sec., **Max.** |
| 400% | 150 ms, **Min.** ;<br>3 Sec., **Max.** |
| 1000% | 20 ms, **Min.** ;<br>150 ms, **Max.** |

## Performance Specification

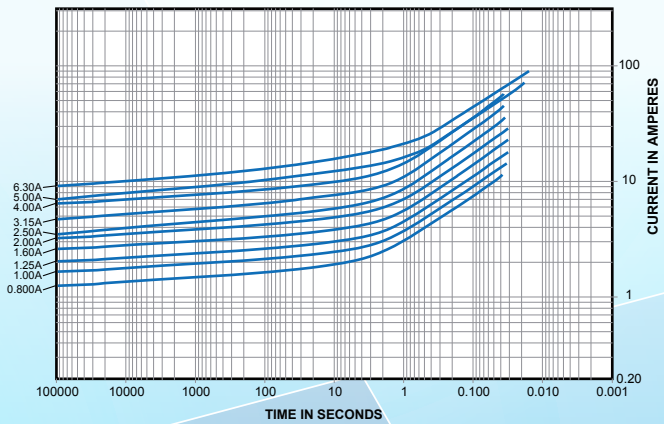
| Amp Code | Rated Current | Voltage Rating | Breaking Capacity | Voltage Drop 1.0×In max. (mV) | Power Dissipation 1.5×In max. (mW) | Melting Integral 10×In min. (A²s) | Agency Approvals |
|---|---|---|---|---|---|---|---|
| | | | | | | | c UL us |
| 0050 | 50mA | 250V | 25A/250 VAC | 650 | 18 | 0.000325 | X |
| 0063 | 63mA | 250V | 25A/250 VAC | 500 | 22 | 0.001580 | X |
| 0080 | 80mA | 250V | 25A/250 VAC | 400 | 28 | 0.003200 | X |
| 0100 | 100mA | 250V | 25A/250 VAC | 350 | 40 | 0.005000 | X |
| 0125 | 125ma | 250V | 25A/250 VAC | 350 | 75 | 0.006250 | X |
| 0160 | 160mA | 250V | 25A/250 VAC | 330 | 120 | 0.007680 | X |
| 0200 | 200mA | 250V | 25A/250 VAC | 300 | 140 | 0.024000 | X |
| 0250 | 250mA | 250V | 25A/250 VAC | 250 | 160 | 0.043750 | X |
| 0315 | 315mA | 250V | 25A/250 VAC | 230 | 180 | 0.059530 | X |
| 0400 | 400mA | 250V | 25A/250 VAC | 210 | 200 | 0.080000 | X |
| 0500 | 500mA | 250V | 25A/250 VAC | 170 | 240 | 0.083000 | X |
| 0630 | 630mA | 250V | 25A/250 VAC | 150 | 260 | 0.119000 | X |
| 0800 | 800 mA | 250 V | 25A/250 VAC | 110 | 280 | 3.80 | X |
| 1100 | 1.00 A | 250 V | 25A/250 VAC | 115 | 400 | 5.80 | X |
| 1125 | 1.25 A | 250 V | 25A/250 VAC | 100 | 500 | 9.75 | X |
| 1160 | 1.60 A | 250 V | 25A/250 VAC | 95 | 600 | 13.50 | X |
| 1200 | 2.00 A | 250 V | 25A/250 VAC | 90 | 700 | 21.00 | X |
| 1250 | 2.50 A | 250 V | 25A/250 VAC | 85 | 750 | 32.00 | X |
| 1315 | 3.15 A | 250 V | 32A/250 VAC | 80 | 1100 | 55.00 | X |
| 1400 | 4.00 A | 250 V | 40A/250 VAC | 75 | 1200 | 100.00 | X |
| 1500 | 5.00 A | 250 V | 50A/250 VAC | 70 | 1000 | 90.00 | X |
| 1630 | 6.30 A | 250 V | 63A/250 VAC | 65 | 1200 | 126.00 | X |

Note: 1.00 means the number one with two decimal places. 1,000 means the number one thousand.

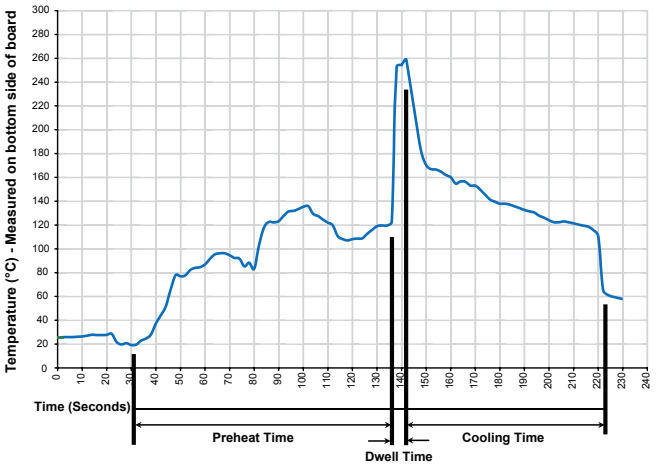
## Temperature Rerating Curve




## Average Time-Current Curve



## Soldering Parameters




Recommended Process Parameters:

| Wave Parameter | Lead-Free Recommendation |
|---|---|
| Preheat:<br>(Depends on Flux Activation Temperature) | (Typical Industry Recommendation) |
| Temperature Minimum: | 100° C |
| Temperature Maximum: | 150° C |
| Preheat Time: | 60-180 seconds |
| Solder Pot Temperature: | 260° C Maximum |
| Solder Dwell Time: | 2-5 seconds |

**Recommended Hand-Solder Parameters:**

Solder Iron Temperature: 350° C +/- 5°C

Heating Time: 5 seconds max.

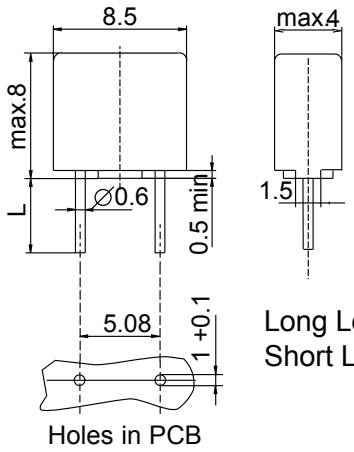
**Note: These devices are not recommended for IR or Convection Reflow process.**

## Product Characteristics

| | |
|---|---|
| **Materials** | Base/Cap: Brown Thermoplastic<br>Polyamide PA 6.6, UL 94 V-0<br>Round Pins: Copper, Tin-plated |
| **Lead Pull Strength** | 10 N (EN 60068-2-21) |
| **Solderability** | 260ºC, ≤ 3s. (Wave)<br>350ºC, ≤ 1s. (Soldering Iron) |
| **Soldering Heat Resistance** | 260ºC, 10s. (IEC 60068-2-20)<br>350ºC, 3s. (Soldering Iron) |
| **Operating Temperature** | *-40ºC to +125ºC (consider de-rating) |
| **Climatic Category** | -40ºC to +85ºC /21 days<br>(EN 60068-1,-2-1,-2-2,-2-78) |
| **Stock Conditions** | +10ºC to +60ºC<br>RH ≤ 75% yearly average, without dew, maximum value for 30 days–95% |
| **Vibration Resistance** | 24 cycles at 15 min. each(EN 60068-2-6)<br>10 - 60 Hz at 0.75 mm amplitude<br>60 - 2000 Hz at 10 g acceleration |

* Internal test conditions from thermal cycling at 125ºC

## Dimensions




Holes in PCB

Long Leads (L=18.8mm)
Short Leads (L=4.3mm)

## Product Identification

**JFS xxxx T R**

**Suffix**
T=time-Lag
R=Radial Leaded

**AMP Code**
Refer to Amp Code column of Electrical Characteristics Table

**Series**
JF=JDT Fuse
S=Square

## Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Quantity & Packaging Code |
|---|---|---|---|---|
| JFS Series | | | | |
| Tape & Ammopack | N/A | 1,400 | 0000 | N/A |
| Short Leads | N/A | 1,400 | 0440 | N/A |