

PRODUCT DATASHEET

Nano Fuses · Surface Mount





## Description -

JFC1206FS Series are the fuses set the industry standard for performance, reliability and quality. The solder - free design provides excellent on - off and temperature cycling characteristics during use and also makes our SMD fuses more heat and shock tolerant than typical subminiature fuses.

#### **Features**

- Rapid interruption of excessive current
- Compatible with reflow and wave solder
- Ceramic and glass construction
- One time positive disconnect
- Lead Free and Halogen free material

## **Agency Approvals**

| Agency   | Agency File Number |
|----------|--------------------|
| <b>A</b> | E486200            |

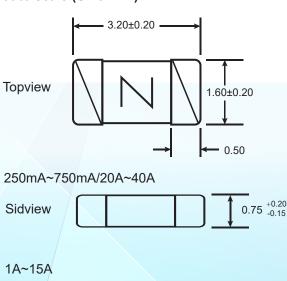
## **Electrical Characteristics**

| Rated Current | 1.0In       | 2.5In      | 3.5In      |
|---------------|-------------|------------|------------|
| 250mA~5A      | 4 hour min. | 5 sec max. | -          |
| 6A~40A        |             | -          | 5 sec max. |

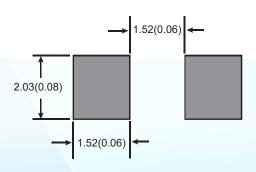
### **Dimensions**

0.60 +0.20 -0.15

### Drawing not to scale (Unit: mm)



### Recommended land pattern Unit: mm(inch)



Sidview



# **Performance Specification**

| Part No.       | Rated<br>Voltage<br>DC (V) | Rated<br>Current<br>(A) | Breaking<br>Capacity <sup>1</sup> | Typical Cold.<br>Resistance<br>(mOhms) <sup>2</sup> | Typical<br>Voltage Drop<br>(mV) | Typical<br>Pre-Arcing<br>I <sup>2</sup> t (A <sup>2</sup> Sec) <sup>3</sup> | Aplha<br>Marking |
|----------------|----------------------------|-------------------------|-----------------------------------|---|---------------------------------|---|------------------|
| JFC1206-0250FS |                            | 0.25                    |                                   | 3608  | 1407                            | 0.0004  | .25              |
| JFC1206-0375FS |                            | 0.375                   |                                   | 1882  | 718                             | 0.0008  | Е                |
| JFC1206-0500FS |                            | 0.50                    |                                   | 1028  | 650                             | 0.0019  | В                |
| JFC1206-0750FS | 72                         | 0.75                    | 50A@72Vdc                         | 601   | 616                             | 0.0057  | .75              |
| JFC1206-1100FS | 63                         | 1.0                     | 50A@63Vdc                         | 490   | 510                             | 0.10  | Н                |
| JFC1206-1150FS | 32                         | 1.5                     | 150A@32Vdc                        | 240   | 367                             | 0.15  | K                |
| JFC1206-1200FS | 24                         | 2.0                     | 300A@24Vdc                        | 132   | 316                             | 0.41  | N                |
| JFC1206-1250FS | 2.5<br>3.0<br>3.5          |                         | 77                                | 240   | 0.65                            | 0   |                  |
| JFC1206-1300FS |                            |                         | 48                                | 187   | 1.39                            | Р   |                  |
| JFC1206-1350FS |                            | 3.5                     | 3.5<br>4.0                        | 40  | 180                             | 1.68  | R                |
| JFC1206-1400FS |                            | 4.0                     |                                   | 35  | 173                             | 1.73  | S                |
| JFC1206-1450FS |                            | 4.5                     |                                   | 30  | 164                             | 2.62  | Χ                |
| JFC1206-1500FS | 32                         | 5.0                     | 150A@32Vdc                        | 25  | 141                             | 2.89  | T                |
| JFC1206-1600FS | 24                         | 6.0                     | 300A@24Vdc                        | 16.5  | 142                             | 11.0  | F                |
| JFC1206-1700FS | 24                         | 7.0                     | Ü                                 | 12  | 140                             | 12.5  | 7                |
| JFC1206-1800FS |                            | 8.0                     |                                   | 8.5   | 110                             | 14.0  | М                |
| JFC1206-2100FS |                            | 10                      |                                   | 6.8   | 100                             | 20.0  | U                |
| JFC1206-2120FS | 24<br>32                   | 12                      | 150A@32Vdc                        | 5.0   | 85                              | 11.5  | 12               |
| JFC1206-2150FS |                            | 15                      | 300A@24Vdc                        | 3.9   | 78                              | 16.5  | 15               |
| JFC1206-2200FS | JZ                         | 20                      | J                                 | 1.8   | 60                              | 47.17   | 20               |
| JFC1206-2250FS |                            | 25                      |                                   | 1.6   | 90                              | 60  | L                |
| JFC1206-2300FS |                            | 30                      |                                   | 1.3   | 90                              | 100   | Z                |
| JFC1206-2400FS | 32<br>24                   | 40                      | 200A@32Vdc<br>200A@24Vdc          | 0.85  | 95                              | 160   | XL               |

<sup>\*</sup> Typical Pre-arcing I²t are measured at 10ln Current

\* DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)

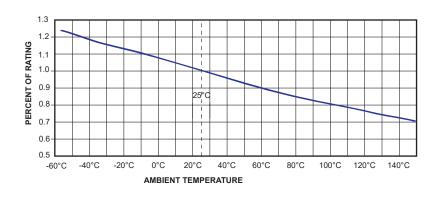
\* DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25°C



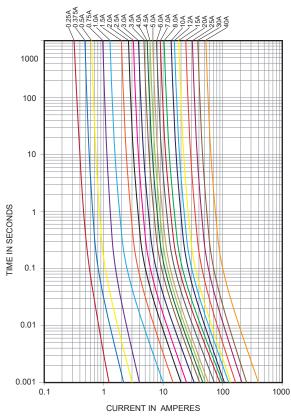
### **Environmental Characteristic**

- Normal ambient temperature: 23+/-3°C
- Operating temperature: -55 ~ 150°C,
   with proper correction factor applied

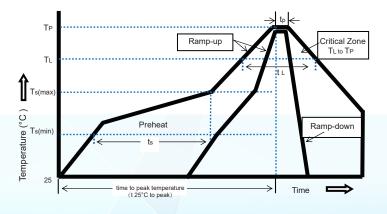
# **Temperature Derating Curve**



### **Average Time-Current Curve**



## **Recommended Soldering Parameters**



| Soldering Method |                       | Parameter   |
|------------------|-----------------------|-------------|
| Wave solder      | Reservoir temperature | 260°C       |
| vvave soluei     | Time in reservoir     | 10 Secs max |
| Infrared reflow  | Temperature           | 260°C       |
|                  | Time                  | 30 Secs max |

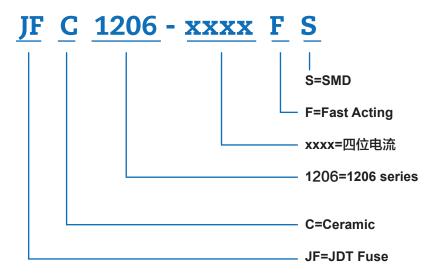
| Profile Feature  |  | Lead(Pb) free solder |  |
|--|--|----------------------|--|
|  | Temperature min (T <sub>smin</sub> )               | 150°C                |  |
| Preheat<br>and soak  | Temperature max (T <sub>smax</sub> )               | 200°C                |  |
|  | Time (T <sub>smin</sub> to T <sub>smax</sub> )(ts) | 60-120 Secs          |  |
| Average ramp up rate Tsmax to Tp   |  | 3°C/Secs Max         |  |
| Liquidous temperature(TL)<br>Time at liquidous(tL)                                 |  | 217°C<br>60-150 Secs |  |
| Peak package body temperature (T <sub>P</sub> )                                    |  | 260°C                |  |
| Time (t <sub>P</sub> ) within 5°C of the specified calssification temperaturea(Tc) |  | 30 Secs              |  |
| Average ramp-down rate (TP to Tsmax)   |  | 6°C/Secs Max         |  |
| Time (25°C to Peak Temperature)  |  | 8 Minutes Max        |  |



### **Packing**

| No.       | Quantity &Packaging Code  |
|-----------|---|
| JFC1206FS | 3000 fuses/reel   |
|           | 8mm tape-and-reel on a 7 inch (178mm) reel per EIA Standard 481 |

# **Part Numbering System**



### Others

- If in use beyond the requirements of the specifications, must pass through the mutual confirmation!
- If the specification is not appropriate, must through consultation between the two sides and by the company to modify.
- It could be in conformance with another file which made by our company.