

PRODUCT DATASHEET

Surfase Mount Fuse





Agency Approvals

| AGENCY | AGENCY FILE NUMBER |
|--------|--------------------|
| | E486200 |

Descriptions

JFC2410TS series time-lay square Surface Mount fuses are ceramic tube/end cap constructions,RoHScompliant, Halogen Free and lead(Pb) exemptsof the requirements of RoHS Directive(2002/95/EC),with U.S. (UL/CSA) safety agency approvals. Provideboard level primary and secondary circuit protection ina wide variety of applications. With excellent inrushcurrent withstanding capability, excellent reliability forthermal and mechanic shock, also have a high reliabilityand stable solder ability, end caps are available ingold/silver/nickel plated.

Applications

- LED lighting
- Notebook PC
- Battery devices
- LCD/PDP devices
- LCD backlight in verter
- Portable Device
- Power supply
- Networking devices
- PC server
- Cooling fan system

- Storage system
- Telecom system
- Wireless base station
- White goods
- Game console
- Digital camera
- Office equipment
- Digital camera
- Automotive devices
- Medical equipment
- Industrial equipment

Features

- Time-Lag
- RoHS compliant
- Conflict free metals
- Small size (6.1mm*2.5mm)

- Wide range of current rating available
- Wide operating temperature range
- Low temperature de-rating
- Tape and Reel for automatic placement

Electrical Characteristics

Pre-Arcing Time / Current Characteristics:

| % of Ampere Rating(In) | | Opening Time |
|------------------------|----------|--------------|
| | 100%*In | 4 hours Min |
| | 200%*In | 120 sec Max |
| | 1000%*In | 10 ms Min |



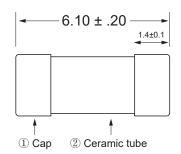
Performance Specification

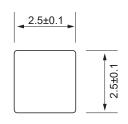
| Part Number | Rated Current (A) | Max Voltage Rating(V) | Interrupting Rating | Nominal Cold Resistance (mΩ) | Nominal Melting I²t (A²sec) |
|----------------|-------------------------|-----------------------------|------------------------|------------------------------------|-----------------------------------|
| JFC2410-0100TS | 0.10 | | | 3100 | 0.00138 |
| JFC2410-0250TS | 0.25 | | | 860 | 0.145 |
| JFC2410-0500TS | 0.50 | | | 320 | 0.275 |
| JFC2410-0750TS | 0.75 | | | 175 | 1.240 |
| JFC2410-1100TS | 1.00 | | | 148 | 3.500 |
| JFC2410-1150TS | 1.50 | | | 85 | 6.305 |
| JFC2410-1200TS | 2.00 | | | 44 | 8.950 |
| JFC2410-1250TS | 2.50 | | | 43 | 16.025 |
| JFC2410-1300TS | 3.00 | | | 33 | 21.560 |
| JFC2410-1315TS | 3.15 | 250V | 50A@250V | 29 | 22.750 |
| JFC2410-1350TS | 3.50 | | | 27 | 27.050 |
| JFC2410-1400TS | 4.00 | | | 25 | 31.808 |
| JFC2410-1500TS | 5.00 | | | 19 | 40.250 |
| JFC2410-1600TS | 6.00 | | | 18 | 67.245 |
| JFC2410-1630TS | 6.30 | | | 17 | 107.55 |
| JFC2410-1700TS | 7.00 | | | 15 | 132.78 |
| JFC2410-1800TS | 8.00 | | | 7.0 | 235.18 |
| JFC2410-2100TS | 10.0 | | | 7.0 | 270.50 |
| JFC2410-2120TS | 12.0 | 125V | 100A@125V | 7.0 | 331.52 |
| JFC2410-2150TS | 15.0 | 120 v | 100/100 120 0 | 6.0 | 375.66 |
| JFC2410-2200TS | 20.0 | | | 2.3 | 410.00 |
| JFC2410-2250TS | 25.0 | 72V | 500A@72V | 1.7 | 550.00 |
| JFC2410-2300TS | 30.0 | | | 1.2 | 900.00 |

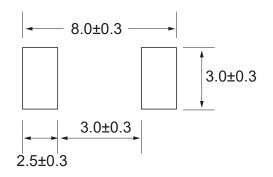


Dimensions and Structure

Outline Drawing and dimensions (unit : mm)







Recommended pad layout

• Material Details:

| NO. | Component | Material |
|-----|--------------|-------------------------------------|
| 1 | Сар | Au Plated Brass Cap |
| 2 | Body | Non-Transparent Square Ceramic Tube |
| 3 | Fuse element | Cu-Ag Alloy wire |

Product Characteristics

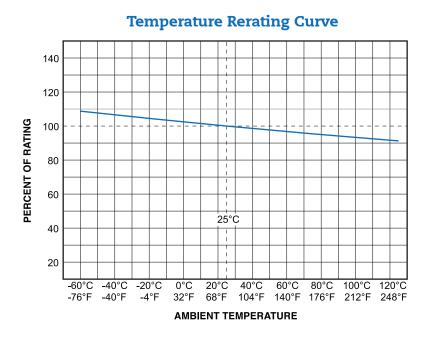
| No. | Item | Contain | Reference standard |
|-----|---------------------------------|---|--|
| 1 | Insulation Resistance | 10,000 ohms minimum | MIL-STD-202G, Method 302 Test ConditionA |
| 2 | Solderability | T=240°C±5°C, t=5+0/-0.5s, Cover≥95% | MIL-STD-202G, Method 208H |
| 3 | Resistance to Soldering Heat | 10 sec at 260°C | MIL-STD-202G, Method 210F Test Condition B |
| 4 | Thermal Shock | 5 cycles, -65°C to +125°C, 15minutes @each extreme | MIL-STD-202G, Method 107G Test Condition B |
| 5 | Mechanical Shock | 100G's peak for 6 milliseconds, 3 cycles | MIL-STD-202G, Method 213B Test 1 |
| 6 | Vibration | 0.03" amplitude, 10-55 Hz in 1 min. 2hrs each XYZ=6hrs | MIL-STD-202G, Method 201A |
| 7 | Moisture Resistance | 10 cycles | MIL-STD-202G, Method 106G |
| 8 | Salt Spray | 5% salt solution,48hrs | MIL-STD-202G, Method 101E Test Condition B |
| 9 | Operating Temperature | -55°C to +125°C | IEC60068-2-1/2 |

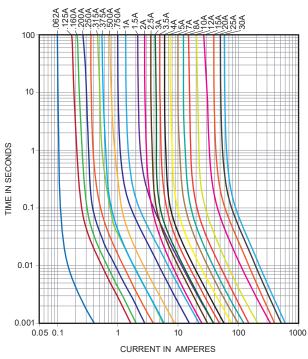


Environmental Characteristic

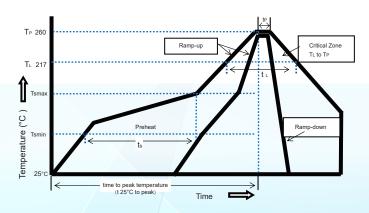
 Company operating temperature of the environment more than 25+/-5°C, in the selection of fuse specifications, it needs to consider the impact of the operating environment of the temperature fuse. Photo: temperature derating curve.

Average Time-Current Curve





Recommended Soldering Parameters



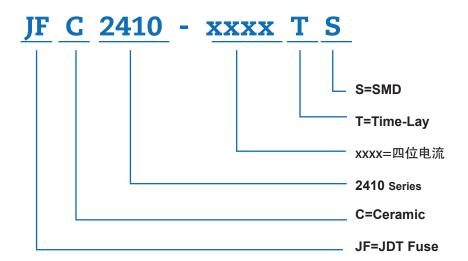
| Reflow Condition | | Pb-Free assembly |
|-----------------------------------|----------------------------|------------------|
| Average | ramp-up rate(Ts(max)to Tp) | 5°C/second max. |
| | Temperature Min (Ts(min)) | 150°C |
| Preheat | Temperature Max (Ts(man)) | 200°C |
| | Time (Min to Max)(ts) | 60~120 seconds |
| Reflow | Temperature (T∟) | 220°C |
| IVEIIOW | Time Max (T∟) | 60 seconds |
| Peak Temperature (Tp) | | 260°C max |
| Ramp-down Rate | | 5°C/second max |
| Time 25°C to peak Temperature(Tp) | | 8 minutes max |



PACKING

| No. | Quantity &Packaging Code | |
|-----------|--|--|
| JFC2410TS | 1000 fuses/reel | |
| | (12mm tape-and-reel on a 7 inch (178mm) reel per EIA Standard 481) | |

- Part Numbering



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.