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JDT FUSE
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PRODUCT DATASHEET

Surface Mount Fuse

JFC2410FS FAST ACTING FUSE

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Descriptions

JFC2410FS series are fast acting square Surface Mount fuses are ceramic tube/end cap constructions, RoHS compliant, Halogen Free and lead(Pb) exempts of the requirements of RoHS Directive, with U.S. (UL/CSA) safety agency approvals. Provide board level primary and secondary circuit protection in a wide variety of applications. With excellent inrush current withstanding capability, excellent reliability for thermal and mechanic shock, also have a high reliability and stable solder ability, end caps are available in gold/silver/nickel plated.

Agency Approvals

Agency	Agency File Number
TÜVRheinland	J50678258
	E486200

Features

- One time positive disconnect
- Fast acting for excessive current
- Low temperature derating
- Tape and Reel for automatic placement
- Wide range of current rating available
- Operating temperature:- 55 °C to +125 °C
- Conflict free metals
- RoHS,REACH compliant and Halogen-Free

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
- Automotive devices
- Medical equipment
- Industrial equipment

Electrical Characteristics

Pre-Arcing Time / Current Characteristics:

% of Ampere Rating(In)	Opening Time
100%*In	4 hours Min
200%*In	5 sec Max

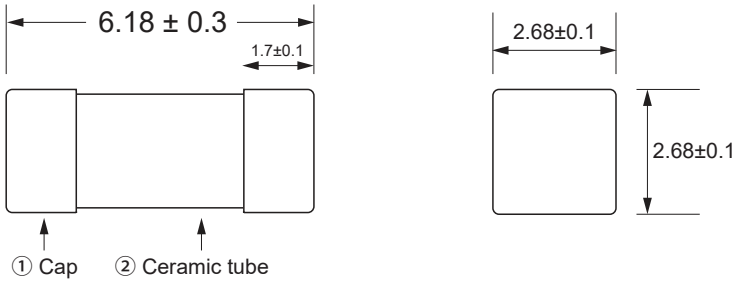
Performance Specification

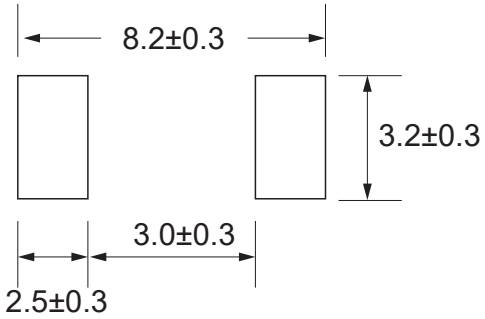
Part Number	Rated Current (A)	Max Voltage Rating(V)	Interrupting Rating	Nominal Cold Resistance (mΩ)	Nominal Melting I^2t (A^2sec)
JFC2410-0050FS	0.050	250V	50A@250V 100A@125V	6900	0.00025
JFC2410-0062FS	0.062			5000	0.00035
JFC2410-0080FS	0.080			4500	0.00040
JFC2410-0100FS	0.100			4200	0.00042
JFC2410-0125FS	0.125			3900	0.00045
JFC2410-0160FS	0.160			2300	0.058
JFC2410-0200FS	0.200			1650	0.062
JFC2410-0250FS	0.250			1450	0.065
JFC2410-0300FS	0.300			850	0.191
JFC2410-0315FS	0.315			650	0.202
JFC2410-0375FS	0.375			610	0.330
JFC2410-0400FS	0.400			580	0.338
JFC2410-0500FS	0.500			320	0.475
JFC2410-0600FS	0.600			265	0.775
JFC2410-0630FS	0.630			256	0.986
JFC2410-0700FS	0.700			230	2.105
JFC2410-0750FS	0.750			225	2.240
JFC2410-0800FS	0.800			203	2.380
JFC2410-1100FS	1.000			128	3.690
JFC2410-1125FS	1.250			92.0	3.760
JFC2410-1150FS	1.500			85.0	6.765
JFC2410-1160FS	1.600			75.0	6.805
JFC2410-1200FS	2.000			38.0	12.15
JFC2410-1250FS	2.500			35.0	16.025
JFC2410-1300FS	3.000			26.0	21.56
JFC2410-1315FS	3.150			25.0	25.75
JFC2410-1350FS	3.500			20.0	30.05
JFC2410-1400FS	4.000			19.0	43.208
JFC2410-1500FS	5.000			13.0	55.25
JFC2410-1600FS	6.000			11.0	75.245
JFC2410-1630FS	6.300			10.0	93.55
JFC2410-1700FS	7.000			9.0	97.12
JFC2410-1800FS	8.000	125V	100A@125V	7.8	108.75
JFC2410-2100FS	10.00			6.6	118.38
JFC2410-2120FS	12.00			4.5	140.08
JFC2410-2150FS	15.00			3.0	210.68

Part Number	Rated Current (A)	Max Voltage Rating(V)	Interrupting Rating	Nominal Cold Resistance (mΩ)	Nominal Melting I²t (A²sec)
JFC2410-2160FS	16.0	72V	500A@72V	2.8	215.25
JFC2410-2200FS	20.0			2.0	358.08
JFC2410-2250FS	25.0			1.58	465.17
JFC2410-2300FS	30.0	63V		1.45	989.65
JFC2410-2400FS	40.0		500A@63V	1.20	1050.78
JFC2410-2500FS	50.0		1000A@63V	0.82	2375.00
JFC2410-2600FS	60.0			0.66	3750.00

Dimensions and Structure

- Outline Drawing and dimensions (unit : mm)





Recommended pad layout

- Material Details:

Component	Material
End caps	Gold/Sliver Plated Brass Cap
Body	Non-Transparent Square Ceramic Tube
Fuse element	Cu-Ag Alloy wire
Filler	Silica

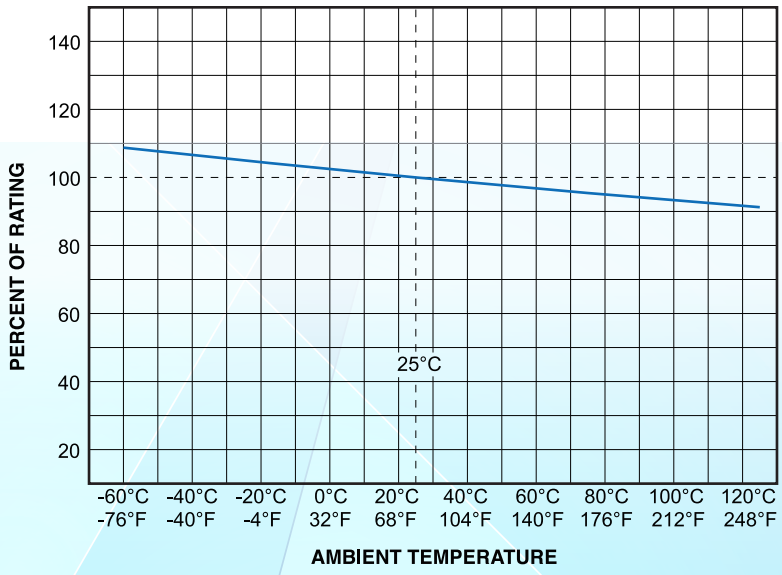
Product Characteristics

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=3 ±0.5s, Cover≥95%	MIL-STD-202G, Method 208
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 201
7	Moisture Resistance	10 cycles	MIL-STD-202G, Method 106
8	Salt Spray	5% salt solution,48hrs	MIL-STD-202G, Method 101, Test Condition B
9	Operating Temperature	-55°C to +125°C	IEC60068-2-1/2

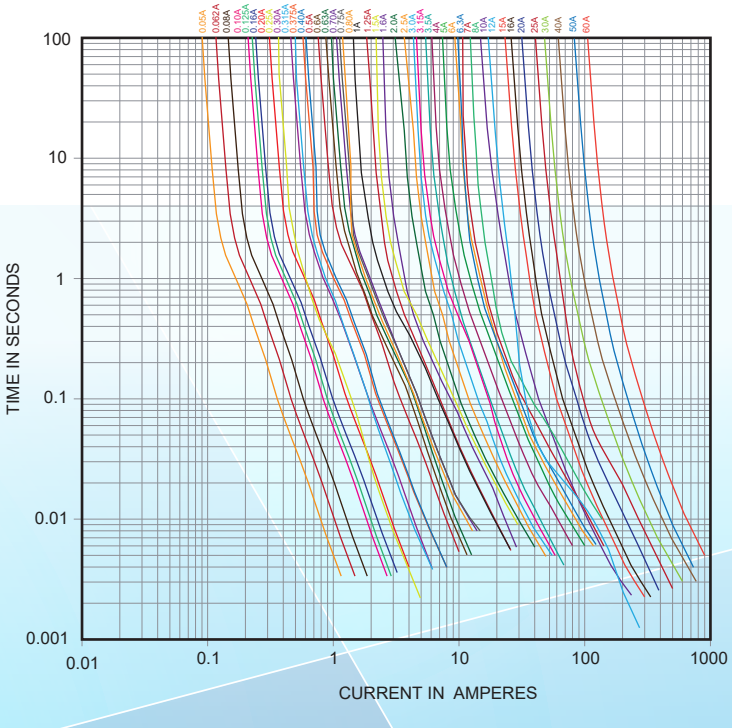
Environmental Characteristic

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

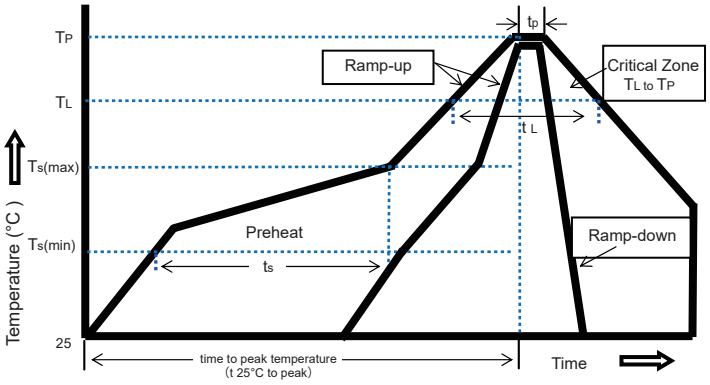
Temperature Rerating Curve



Average Time-Current Curve



Recommended Soldering Parameters

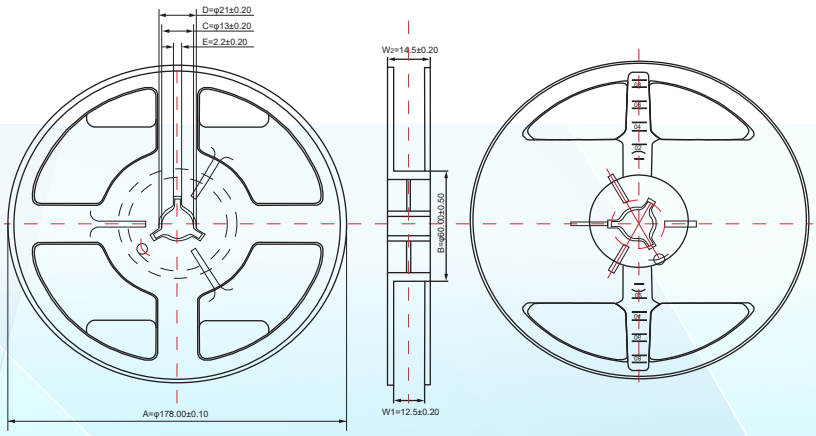


Soldering Method		Parameter
Wave/Reflow solder	Solder paste process	
	Solder Pot Temperature	260°C max
	Solder Dwell Time	5 seconds max
Hand-Solder	Solder Iron Temperature	300±5°C max
	Heating Time	1-2 s max

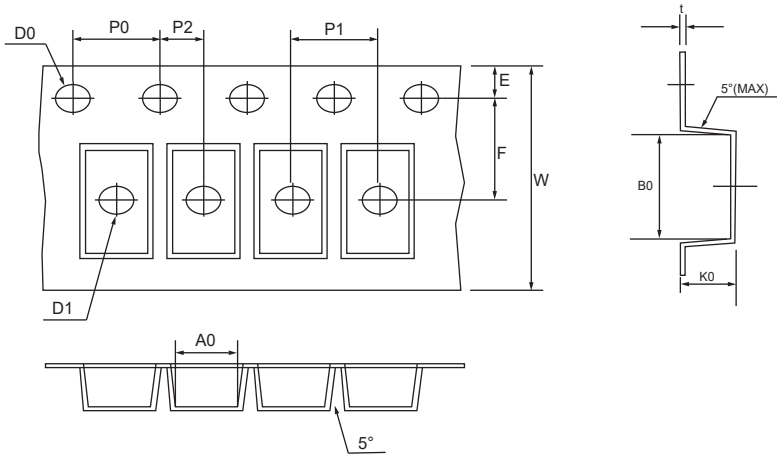
Reflow Condition		Pb-Free assembly
Average ramp-up rate(Ts(max)to Tp)		5°C/second max.
Preheat	Temperature Min (Ts(min))	150°C
	Temperature Max (Ts(max))	200°C
	Time (Min to Max)(ts)	60~120 seconds
Reflow	Temperature (T_L)	220°C
	Time Max (t_L)	60 seconds
Peak Temperature (Tp)		260°C max
Ramp-down Rate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

Packing

No.	Quantity &Packaging Code
JFC2410FS	1500 fuses/reel (12mm tape-and-reel on a 7 inch (178mm) reel per EIA Standard 481)



Item	A	B	C	D	E	W1	W2
Spec.(mm)	178±0.10	60±0.50	13±0.20	21±0.20	2.2±0.20	12.5±0.20	14.5±0.20



Item	A0	B0	D0	D1	E	F
Spec.(mm)	2.70±0.10	6.4±0.10	1.5±0.10	1.50±0.25	1.75±0.10	5.50±0.10
Item	**K0**	**P0**	**P1**	**P2**	**W**	**t**
Spec.(mm)	2.70±0.10	4.00±0.10	4.00±0.10	2.0±0.10	12.00±0.15	0.25±0.05

Part Numbering

JF C 2410 - xxxx F S

- S=SMD
- F=Fast acting
- xxxx=四位电流
- 2410 Series
- C=Ceramic
- JF=JDT Fuse

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.