



PRODUCT DATASHEET

Surface Mount Fuse

RC2410FS FAST ACTING FUSE



Descriptions

RC2410FS 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(2002/95/EC), 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.

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

Agency Approvals

AGENCY	AGENCY FILE NUMBER
	E486200

Features

- Fast acting
- 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:

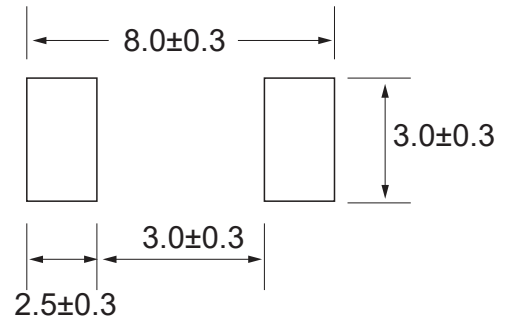
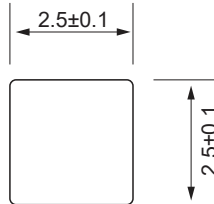
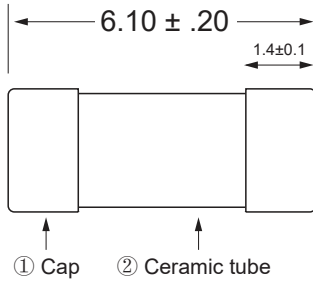
% of Ampere Rating(In)	Opening Time
100%*In	4 hours Min
200%*In	5 sec Max

Performance Specification

Part Number	Rated Current (A)	Max Voltage Rating(V)	Interrupting Rating	Nominal Cold Resistance (ohms)	Nominal Melting I ² t (A ² sec)
RC2410-0062FS	0.062	250V	50A@250V	5.65	0.00034
RC2410-0250FS	0.25			0.860	0.145
RC2410-0500FS	0.50			0.320	0.275
RC2410-0750FS	0.75			0.175	1.240
RC2410-1100FS	1.00			0.148	3.500
RC2410-1150FS	1.50			0.085	6.305
RC2410-1200FS	2.00			0.044	8.950
RC2410-1250FS	2.50			0.043	16.025
RC2410-1300FS	3.00			0.033	21.560
RC2410-1315FS	3.15			0.029	22.750
RC2410-1350FS	3.50			0.027	27.050
RC2410-1400FS	4.00			0.025	31.808
RC2410-1500FS	5.00			0.019	40.250
RC2410-1600FS	6.00			0.018	67.245
RC2410-1630FS	6.30			0.017	107.550
RC2410-1700FS	7.00			0.015	132.780
RC2410-1800FS	8.00			0.007	235.180
RC2410-2100FS	10.0	125V	100A@125V	0.007	270.500
RC2410-2120FS	12.0			0.007	331.520
RC2410-2150FS	15.0	72V	500A@72V	0.006	375.660
RC2410-2200FS	20.0			0.0023	210
RC2410-2250FS	25.0			0.0017	400
RC2410-2300FS	30.0			0.0012	900

Dimensions and Structure

- Outline Drawing and dimensions (unit : mm)



Recommended pad layout

- Material Details:

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

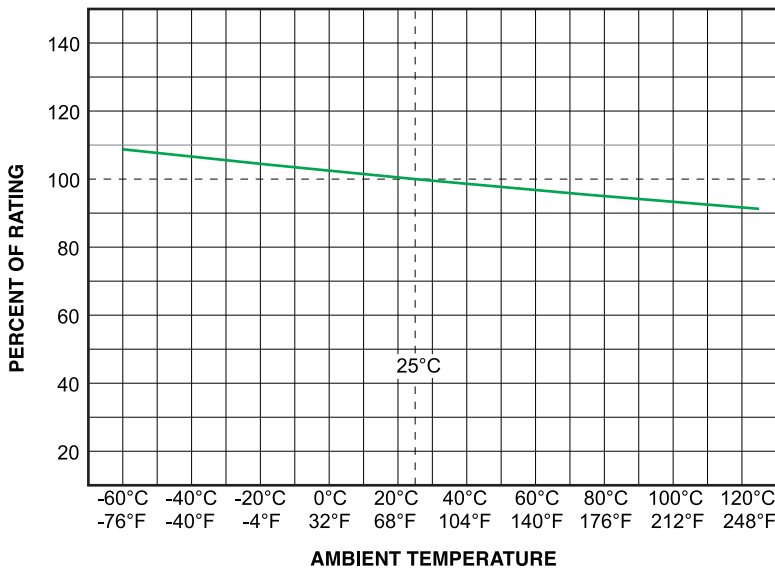
Product Characteristics

No.	Item	Contain	Reference standard
1	Insulation Resistance	10,000 ohms minimum	MIL-STD-202G, Method 302 Test Condition A
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

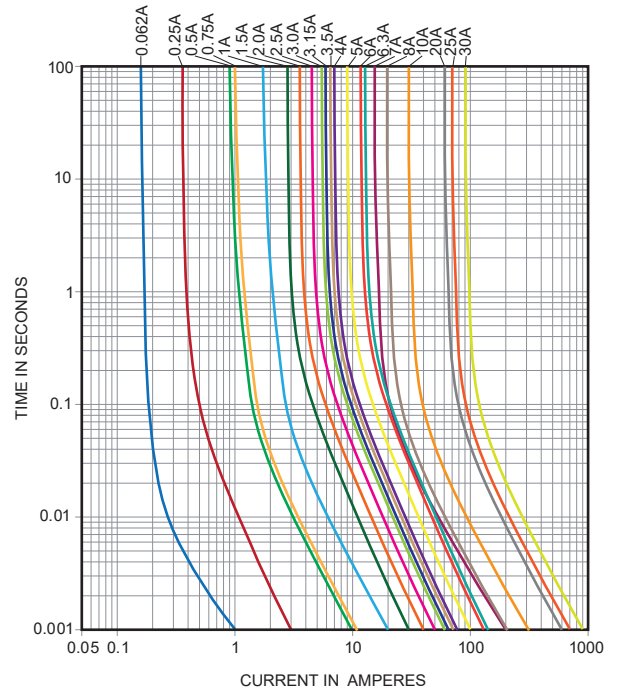
Environmental Characteristic

- 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.

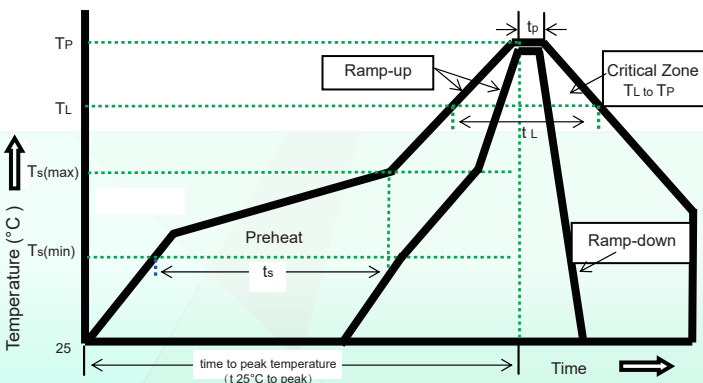
Temperature Derating Curve



Average Time-Current Curve



Recommended Soldering Parameters



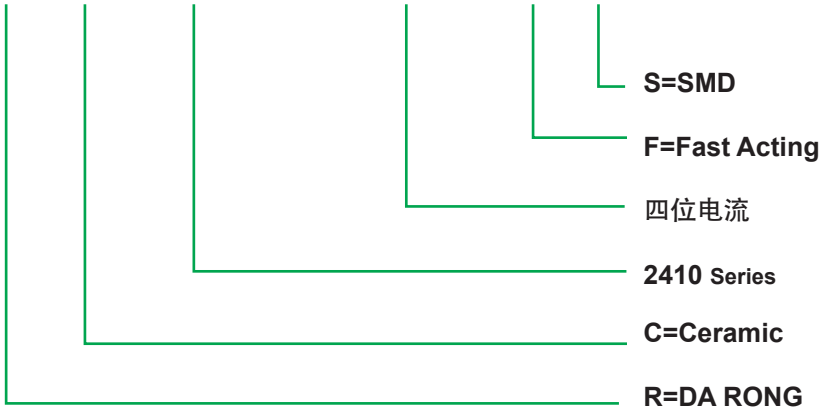
	Reflow Condition	Pb-Free assembly
Preheat	Average ramp-up rate (Ts(max) to Tp)	5°C/second max.
	Temperature Min (Ts(min))	150°C
Reflow	Temperature Max (Ts(max))	200°C
	Time (Min to Max)(ts)	60~120 seconds
Peak Temperature (Tp)	Temperature (TL)	220°C
	Time Max (TL)	60 seconds
Ramp-down Rate		5°C/second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

Packing

No.	Quantity &Packaging Code
RC2410FS	1000 fuses/reel (12mm tape-and-reel on a 7 inch (178mm) reel per EIA Standard 481)

Part Numbering

R C 2410 - xxxx F S



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.