



PRODUCT DATASHEET

Surface Mount Fuse

RC2410TS TIME-LAY FUSE



Descriptions

RC2410TS series time-lay square Surface Mount fuses are ceramic tube/end cap constructions, RoHS compliant, Halogen Free and lead(Pb) exempt 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 mechanical 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 inverter
- 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

- 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:

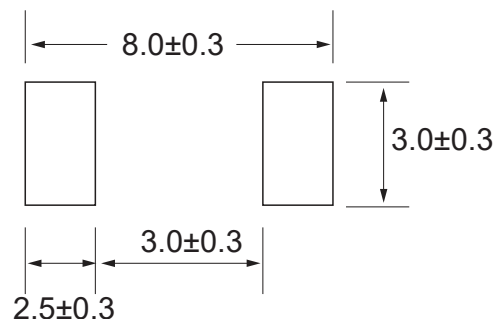
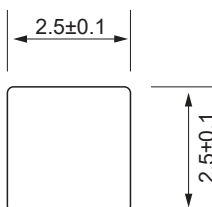
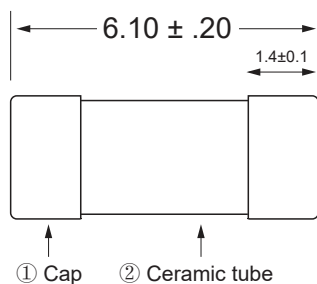
% of Ampere Rating(In)	Opening Time
100%*In	4 hours Min
200%*In	120 sec Max
1000%*In	10 ms Min

Performance Specification

Part Number	Rated Current (A)	Max Voltage Rating(V)	Interrupting Rating	Nominal Cold Resistance (ohms)	Nominal Melting I ² t (A ² sec)
RC2410-0100TS	0.10	250V	50A@250V	3.100	0.00138
RC2410-0250TS	0.25			0.860	0.145
RC2410-0500TS	0.50			0.320	0.275
RC2410-0750TS	0.75			0.175	1.240
RC2410-1100TS	1.00			0.148	3.500
RC2410-1150TS	1.50			0.085	6.305
RC2410-1200TS	2.00			0.044	8.950
RC2410-1250TS	2.50			0.043	16.025
RC2410-1300TS	3.00			0.033	21.560
RC2410-1315TS	3.15			0.029	22.750
RC2410-1350TS	3.50			0.027	27.050
RC2410-1400TS	4.00			0.025	31.808
RC2410-1500TS	5.00			0.019	40.250
RC2410-1600TS	6.00			0.018	67.245
RC2410-1630TS	6.30			0.017	107.550
RC2410-1700TS	7.00	125V	100A@125V	0.015	132.780
RC2410-1800TS	8.00			0.007	235.180
RC2410-2100TS	10.0			0.007	270.500
RC2410-2120TS	12.0			0.007	331.520
RC2410-2150TS	15.0			0.006	375.660
RC2410-2200TS	20.0	72V	500A@72V	0.0023	210
RC2410-2250TS	25.0			0.0017	400
RC2410-2300TS	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

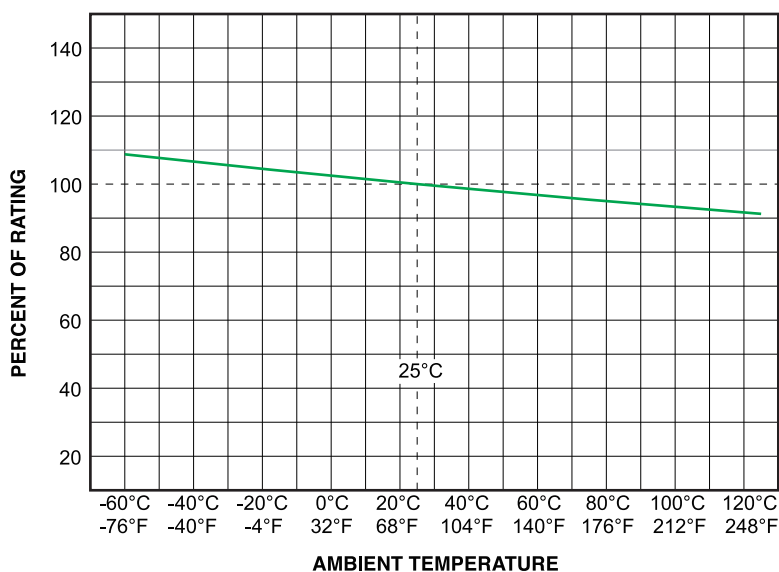
Product Characteristics

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

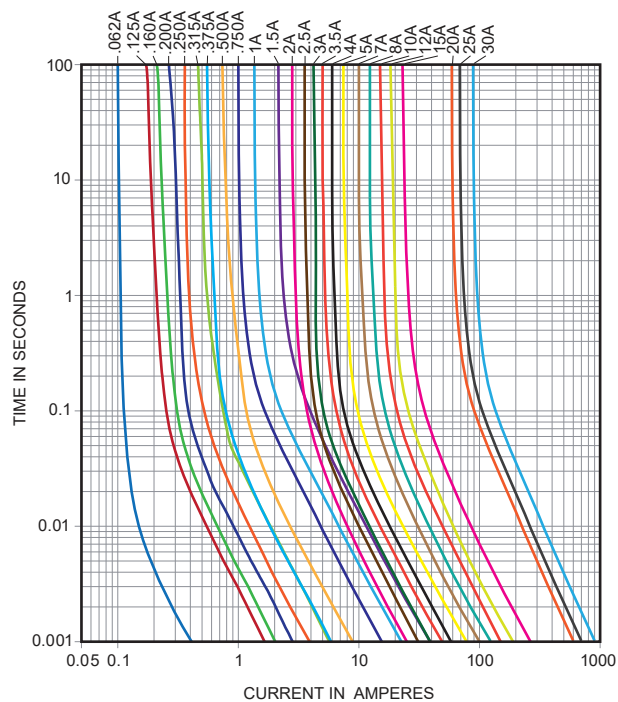
Environmental Characteristic

- Company operating temperature of the environment more than $25 \pm 5^\circ\text{C}$, in the selection of fuse specifications, it needs to consider the impact of the operating environment of the temperature fuse. Photo: temperature derating curve.

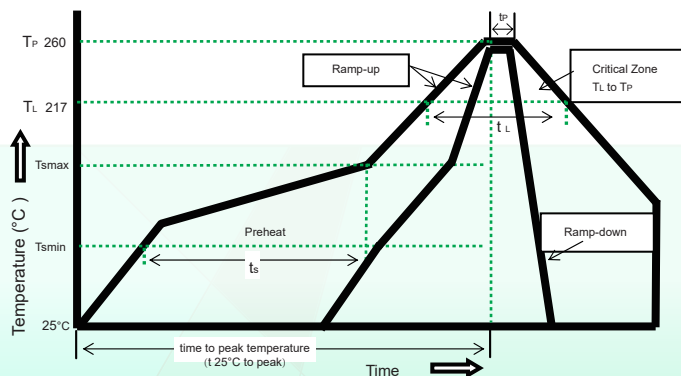
Temperature Derating Curve



Average Time-Current Curve



Recommended Soldering Parameters

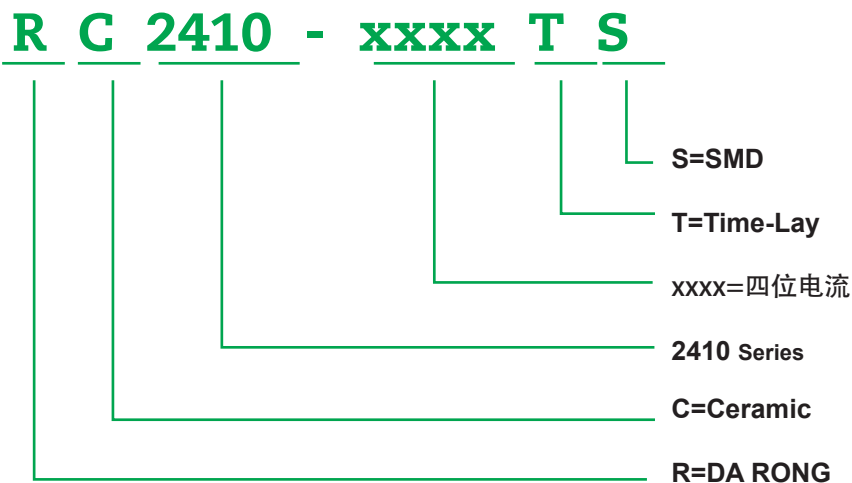


Reflow Condition		Pb-Free assembly
Average ramp-up rate ($T_s(\text{max})$ to T_P)	Temperature Min ($T_s(\text{min})$)	$5^\circ\text{C}/\text{second max.}$
	Temperature Max ($T_s(\text{man})$)	150°C
Preheat	Time (Min to Max) (t_s)	60~120 seconds
	Temperature (T_L)	220°C
Reflow	Time Max (T_L)	60 seconds
	Peak Temperature (T_P)	260°C max
Ramp-down Rate		$5^\circ\text{C}/\text{second max}$
Time 25°C to peak Temperature (T_P)		8 minutes max

PACKING

No.	Quantity &Packaging Code
RC2410TS	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.