

FR-9550-30A-(C01~C14)-B

Features / Applications :

- OverCurrent Protection: Protect batteries from abnormal overcurrent behavior.
- OverVoltage Protection: Protect batteries from abnormal overvoltage behavior.
- Surface mountable fuse
- Halogen free
- Fast response time
- UL certificated: E314624 / TUV file number: TA50201483

Electrical Specifications :

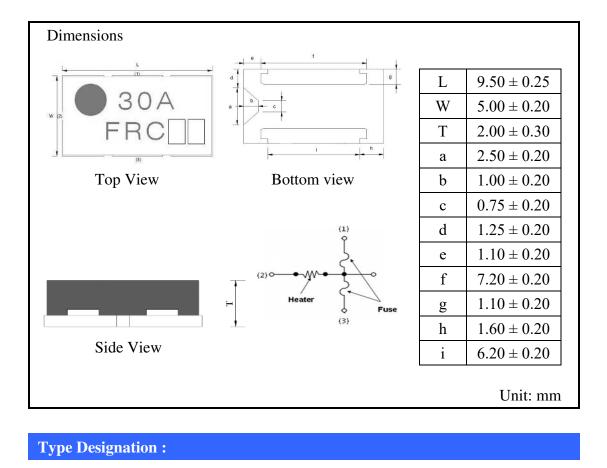
Characteristics	Feature	
Rated Voltage(*1)	62VDC	
Rated Breaking Capacity	80A	
Re-flow Temp.(MAX)	260°C	
Fuse Resistance	0.5~2.0mΩ	
	C01: 0.8~1.2Ω	
	C03: 3.2~5.2Ω	
	C04: 6.3~9.3Ω	
Heater Resistance	C05: 10.0~15.0Ω	
	C07: 18.8~31.2Ω	
	C10: 40.0~60.0Ω	
	C14(C12~C14): 72.4~120.6Ω	
	C01: 4.0~6.6V	
	C03: 8.4~13.2V	
	C04: 11.1~18.4V	
Operating Voltage	C05: 14.0~23.4V	
	C07: 20.2~31.5V	
	C10: 28.0~46.9V	
	C14(C12~C14): 39.6~62.0V	

Note:

Maximum voltage is not the operating voltage for the heater.



Outline Drawing :



FR	-	9550	-	30A	-	$C\Box\Box$	-	В
(1)		(2)		(3)		(4)		(5)

Note:

- (1) FR : Series number
- (2) 9550 : 9.5 mm * 5.0 mm size
- (3) 30A: Rated current
- (4) $C\Box\Box$: Cells
 - C01 : One cell
 - C03: Three cells
 - C04 : Four cells
 - C05 : Five cells
 - C07 : Seven cells
 - C10: Ten cells
 - C14 : Twelve-fourteen cells
- (5) B: B version

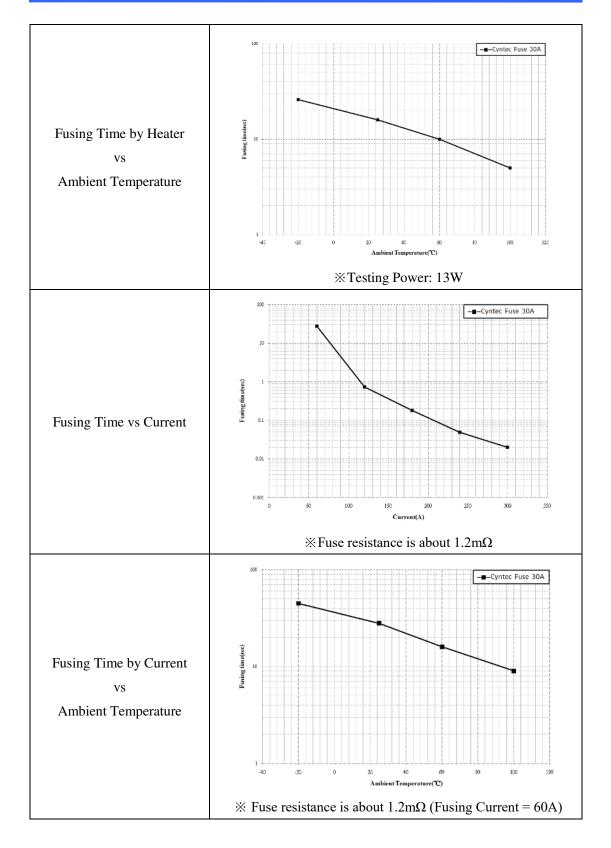


Characteristics :

Electric performance

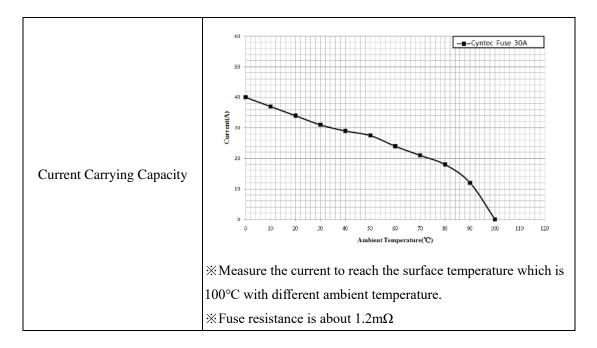
Item	Specification and Requirement				
Fusing Time vs Electric Power					
Fusing Time vs Voltage	100				













Reliability

Test Item	Condition of Test	Requirements
Carrying capacity (UL248-14)	100% of rated current, 4hr	Without melting
Temperature Rise (UL248-14)	100% of rated current shell be carried. And then it shall be made to measurement of surface temperature	ΔT < 75°C
Fusing time (UL248-14)	200% rated current; 13~53W shall be applied to heater. Operating voltage shall be applied to heater.	Clearing time < 1 min
Interrupting Ability	After the fuse is interrupted, rated voltage applied for 30sec again.	No mechanical damages
Residual Resistance (UL248-14)	Measure DC resistance after fusing.	>10kΩ
Solderability (JEDEC J-STD-020D)	Temperature of Solder: $245 \pm 5^{\circ}$ C Immersion Duration: 3 ± 0.5 second Refer to JIS C 5201-1 4.17	Uniform coating of solder cover minimum of 95% surface being immersed
High Temperature Exposure (JESD22-A103C)	Kept at 100°C for 1,000 hours.	ΔR: ± 10% Without distinct damage in appearance
Thermal Shock (JESD22-A104C)	-55°C/25°C/125°C/25°C, 100 cycles.	$\Delta R < 10\%$ Without distinct damage in appearance
Current Rush Withstand	Rush Withstand 300A-1ms-On, 9999ms-Off, 30000cycle.	
Current Rush Withstand	100A-5ms-On, 995ms-Off, 100000cycle.	No fusing

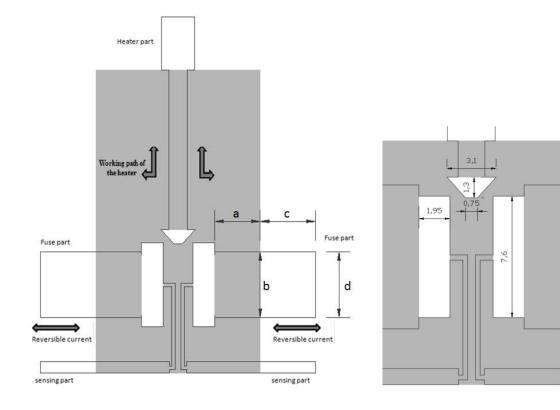


Recommended Solder Pad Dimensions:

The thickness of tin plated copper layers is 2oz.

Recommended thickness of solder printing board is 0.12mm at least.

Used wire : AWG 10



Туре	а	b	с	d
30A	4.13	6.0	5	6.0

Unit: mm

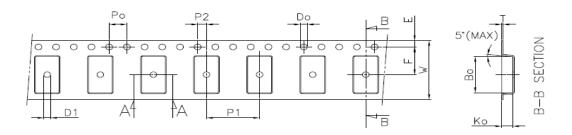


Chip setting



Packaging:

Tape packaging dimensions



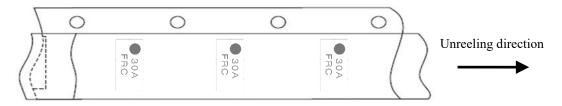


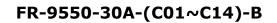
A-A SECTION

							<u>UNIT:mm</u>
Symbol	Ao	Во	Ko	Po	P1	P2	Т
Spec	5.40±0.10	9.90±0.10	2.48±0.10	4.00±0.10	12.0±0.10	2.00±0.10	0.30±0.05
Symbol	E	F	Do	D1	W	10Po	
Spec	1.75±0.10	7.50±0.10	1.50 ± 0.10	1.50(MIN)	16.0±0.30	40.0±0.20	

Direction

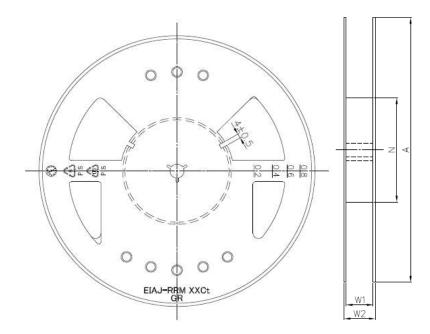
The direction shall be seen from the top cover tape side.







Reel dimensions

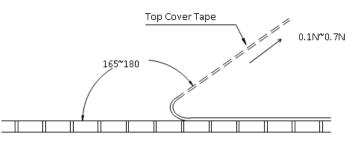


TAPE WIDTH	А	Ν	Е	W1	W2
16 mm	330 ± 2.0	100 ± 2.0	13.0 ± 0.2	17.40 ± 1.0	21.40 ± 1.0

Number of Taping: 1,000 pieces/reel

Peel strength of top cover tape :

The peel speed shall be about 300mm/min.



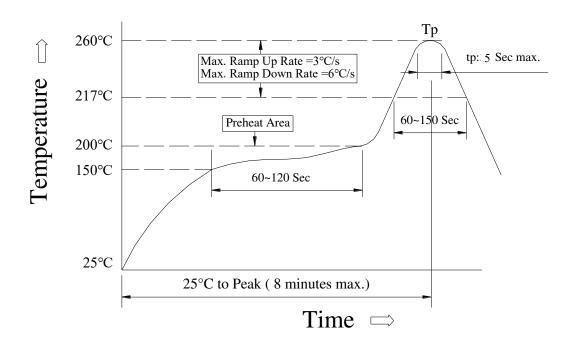
Label Marking:

The following items shall be marked on the reel:

- 1. Type designation
- 2. Quantity
- 3. Manufacturing date code
- 4. Manufacturer's name
- 5. The country of origin



Sn plating Reflow Profile :



Reflow Soldering Method:

Time 25°C to peak temperature	8 minutes max.		
Pre-Heat	150~200°C	60~120 seconds	
Reflow Soldering	217°C	60~150 seconds	
	Tp: 255~260°C	Max. 5 seconds	

Note: Meet JEDEC J-STD-020D

Characteristics :

Functional temperature range: -25~85°C

Operating temperature range: -10~65°C (Fusing time <1min)

Test temperature range: $25 \pm 5^{\circ}$ C

Ambient condition Relative humidity: 45~85% Air Pressure: 86~106kPa



Other Information :

Soldering iron method

Bit temperature: $300 \pm 5^{\circ}$ C Application of soldering iron: 3 seconds MAX

Apply the soldering iron to the electrode.

The specimen shall be stored at standard atmospheric condition for 24h, after which the measurements shall be made. Do not suggest products for re-work.

Product storage conditions

This product should be dark and at ambient temperature is less than 40°C or relative humidity less than 60% RH place, in the above storage conditions the storage period of 6 months.

Precautions on use

Avoid contact with the resin film with this product, its resin may seep into the product, so the product does not apply to the resin material relevance, its properties can't be fully guaranteed.