



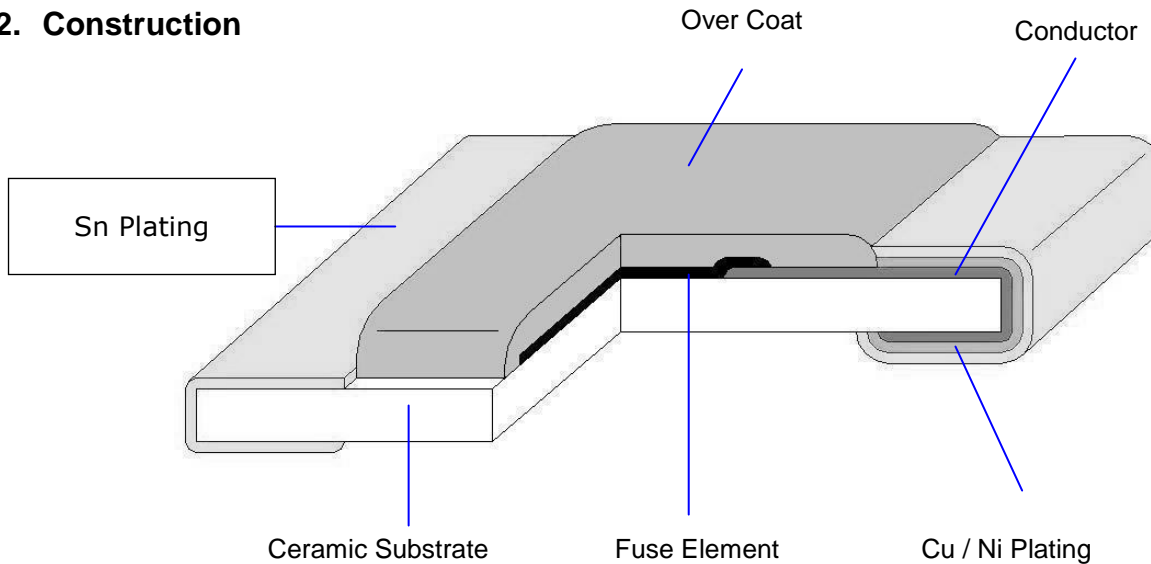
Thin Film Chip Fuse

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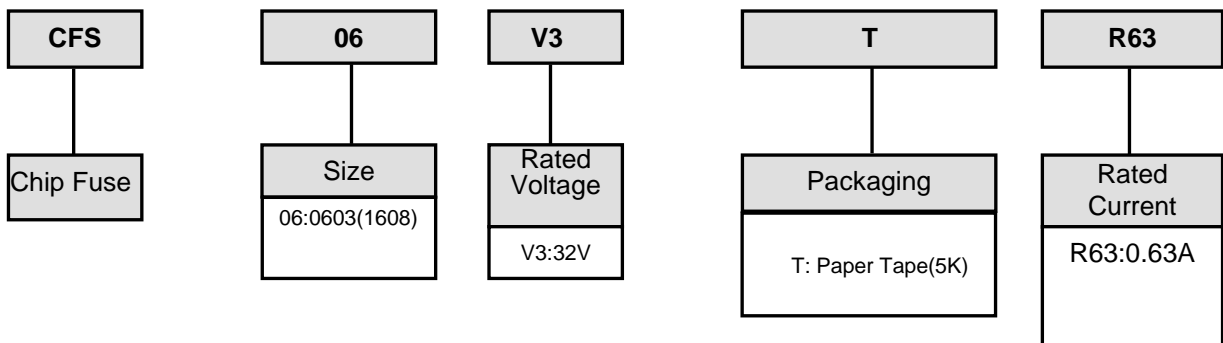
1. Scope

This specification applies for the fuse series of thin film chip fuse made by TA-I.

2. Construction



3. Type Designation

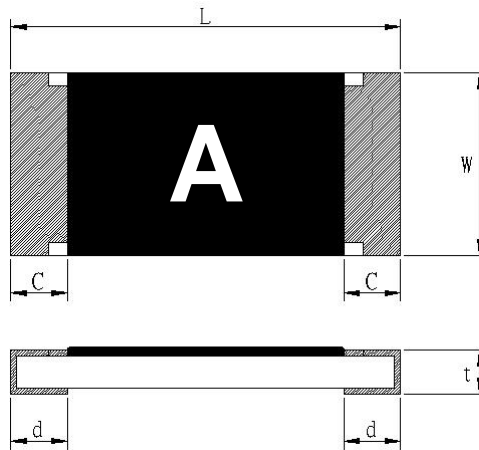




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4. Dimensions



Unit: mm

Type (Inch Size code)	Dimensions (mm)				
	L	W	C	d	t
CP12V (1206)	3.1±0.1	1.55±0.1	0.5±0.3	0.5±0.2	0.6±0.1

5. Applications and ratings

Part Designation	Marking	Rated Current	Fusing Time	Resistance (mΩ) Tolerance±25%	Rated Voltage	Typical I ² t (A ² s)	Breaking Capacity	Body Temperature rising
CFS06V3TR63	I	0.63A	Open within 5sec.at 250% rated current	150	DC 32V	0.016	DC32V 50A	<75°C at 100% rated current



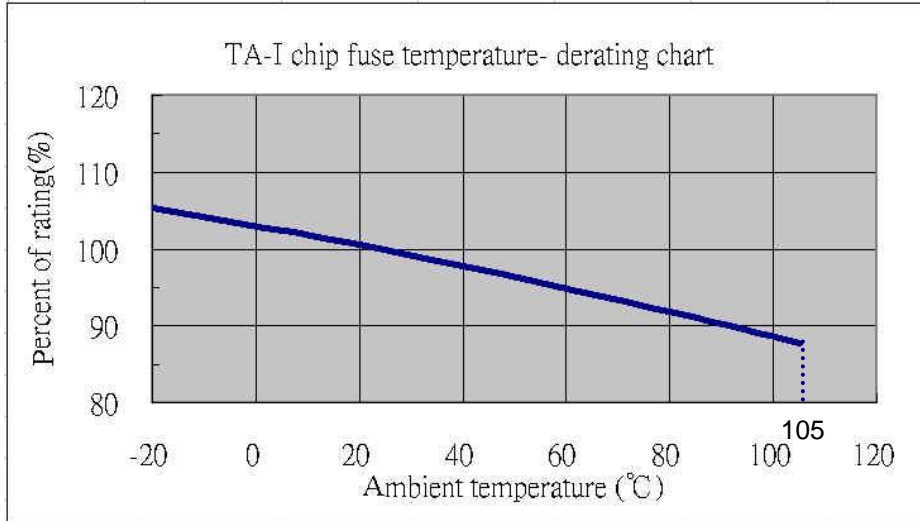
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6. Temperature Derating Curve

6.1 Normal Ambient Temperature: 25°C

6.2 Operating Temperature: -20°C~105°C, with proper Derating factor as below:



7. Reliability Tests

Parameter	Requirement	Test Method
Carrying capacity	No fusing	Rated current ,4hr
Fusing Time	Within 5sec.	250% of its rated current
Interrupting Ability	No mechanical damages	After the fuse is interrupted ,rated voltage applied for 30sec again
Bending Test	No mechanical damages	Distance between holding points: 90mm, Bending:3mm,1time ,30sec
Resistance to solder Heat	±20%	260°C±5°C,10seconds ±1second
Solderability	95% coverage minimum	235°C±5°C, 2±0.5second 245°C±5°C, 2±0.5second (Lead Free)
Temperature Rise	<75°C	100% of its rated current, Measure of surface temperature
Resistance to Dry Heat	±20%	105°C±5°C,1000 hrs
Resistance to Solvent	No evident damages on protective coating and marking	23°C±5°C of Isopropyl alcohol 90second
Residual Resistance	10kΩ and more	Measure DC resistance after fusing
Thermal Shock	ΔR< 10 %	-20°C / +25°C /+125°C /+25°C , 10 cycles



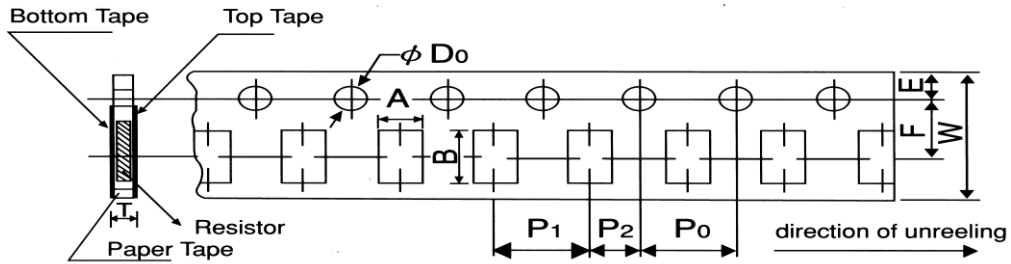
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9. Taping & Reel

9.1 Taping Dimensions

4mm pitch paper

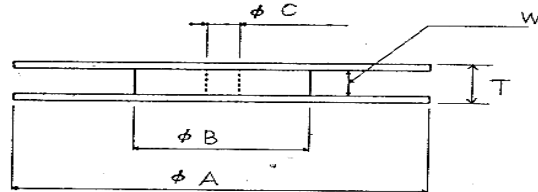
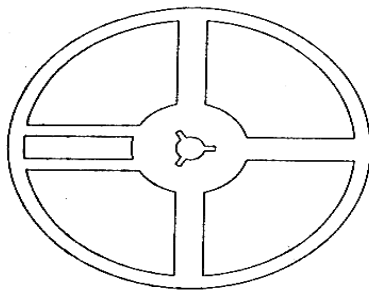


Packing	Type	A	B	W	F	E	P ₁	P ₂	P ₀	D ₀	T
Paper Tape	CFS06	2.0±0.15	3.6±0.2	8.0±0.2	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.1	φ 1.5 ^{+0.1} ₋₀	0.84±0.1

Unit: mm

Type series		Paper Tape
		4 mm pitch
		180mm/R
CFS	06	5000

9.2 Reel Specifications



Unit: mm

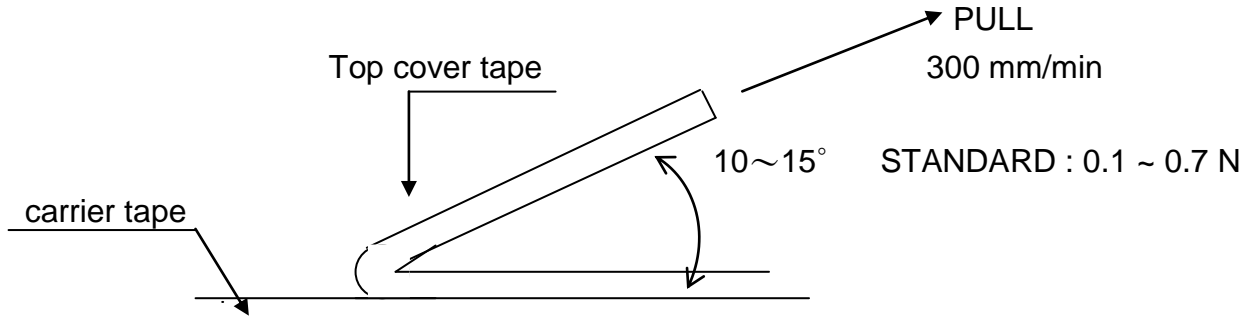
Series	φ A	φ B	φ C	W	T
CFS06	178 ±2.0	60.0 ± 1.0	13.0±1.0	9.0±1.0	11.4±2.0



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9.3 Peel –off force :



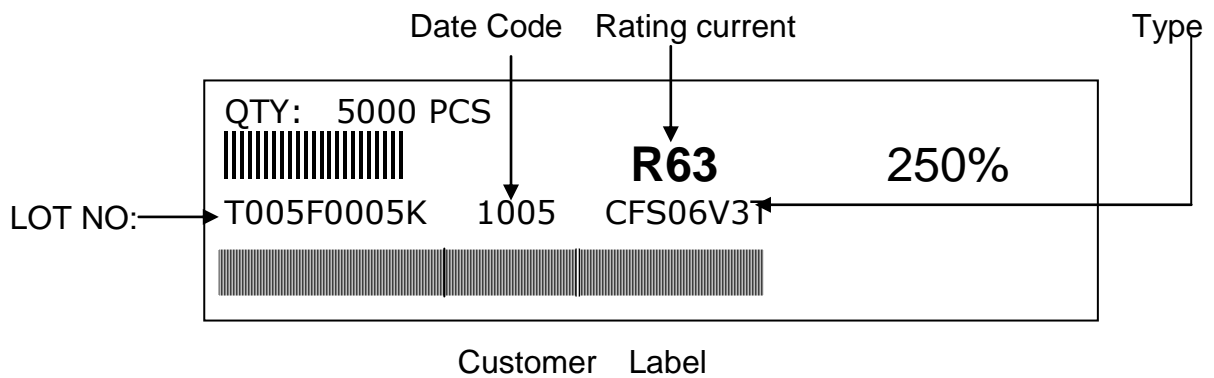
10. Storage Conditions:

Temperature: 5°C~35°C, Humidity: 40%~75%

11. Shelf Life:

2 years from manufacturing date

12. Label

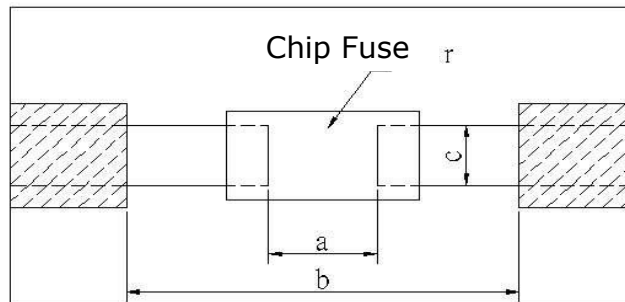




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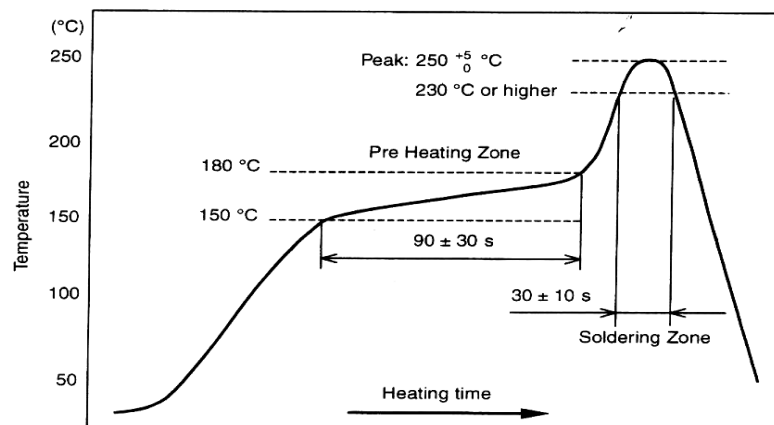
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13. Recommended land patterns



Land pattern		Dimension		
Type	Size	a	b	c
CFS	06 (0603)	0.7~0.9	2.0~2.2	0.8~1.0

14. Recommend IR – Reflow profile : (solder : Sn96.5 / Ag3 / Cu0.5)



Peak : $250 \begin{matrix} +5 \\ -0 \end{matrix} ^\circ\text{C}$, 5 sec

Pre – heat Zone : 150 to 180 °C , 90±30 sec

Soldering Zone : 230°C or higher , 30±10 sec

15. Approval by UL248-14

The fuses have been approved by UL.

File No. of UL Recognition is E241710

16. ECN

Engineering Change Notice: The customer will be informed with ECN if there is significant modification on the characteristics and materials described in Approval Sheet.



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17. Manufacturing Country & City :

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(3) FORTUNE TASK RESISTOR FACTORY (China – Dongguan)

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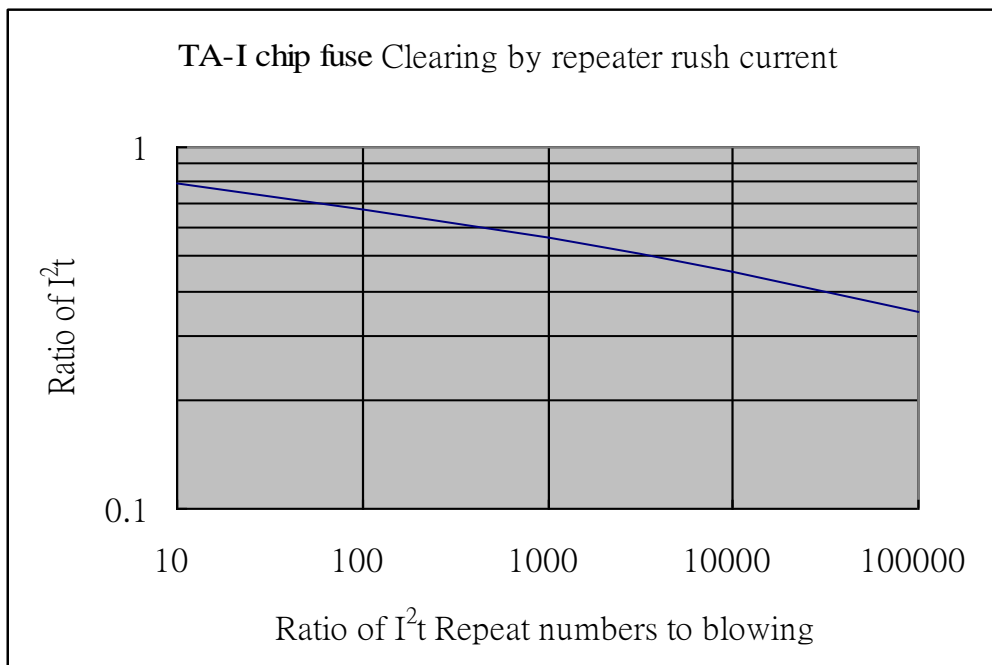
(4) TAI OHM ELECTRONICS (M) SDN. BHD. (Malaysia – Penang)

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(5) P.T.TAI ELECTRONIC Indonesia (Indonesia – Jakarta)

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18. Chip fuse Clearing by repeater rush current:

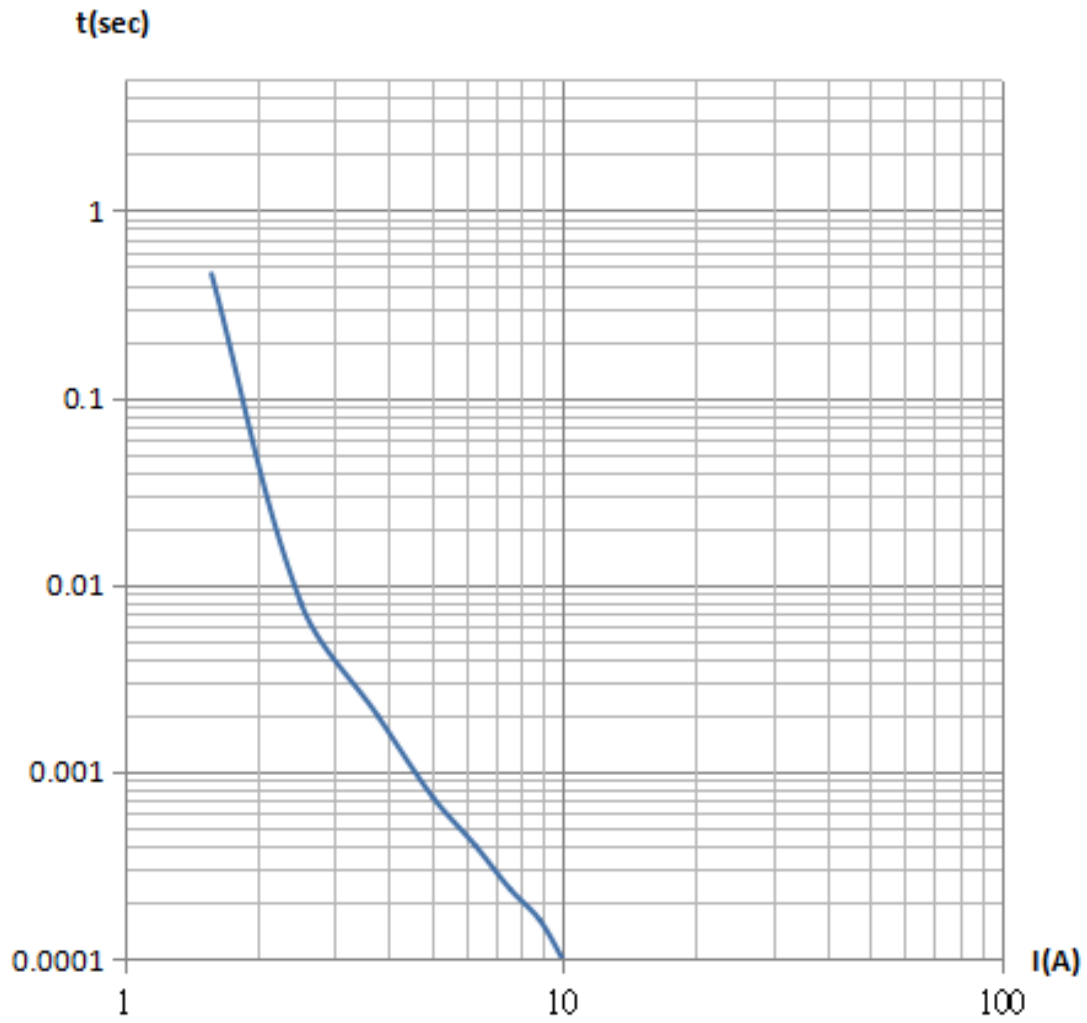




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19.I-t curve:





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20.I²t-t curve:

