


1. 適用範圍 / SCOPE

1206SF 系列高電流型保險絲，適用於一般電子設備。
1206SF series High Current Fuse, used in electronic equipment.



2. 產品編碼 / Part Numbering

例「example」：

1206SF	12A	32V	
①	②	③	④

- ① 系列號 / Series Number
- ② 額定電流 / Rated Current
- ③ 額定電壓 / Rated Voltage
- ④ 認證符號 / Approved Symbol

3. 額定電流和額定電壓 / RATED CURRENT AND RATED VOLTAGE

額定電流 / Rated Current:

12A~30A

額定電壓 / Rated Voltage:

12A~15A :32V dc

20A~30A :32V dc /48V dc

4. 標示 / MARKING

保險絲上需有下列標示 / The fuses shall have the following marking

額定電流 / Rated Current (A):

注意 / Note :

對標示的大小和位置沒有規定 / Size and position of the markings shall not be provided.

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5. 外觀及形狀 / APPEARANCES AND CONFIGURATION

5-1 外觀：無顯著的汙點、鐵銹或裂紋；標示應容易辨識。

Appearances : There shall not be any remarkable stain, rust or crack on the appearances; marking shall be easily legible.

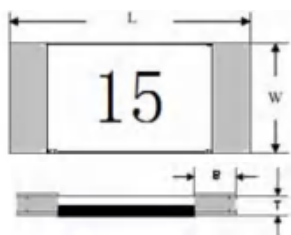
5-2 形狀：表面貼裝式保險絲

Configuration : Surface Mount Fuse.



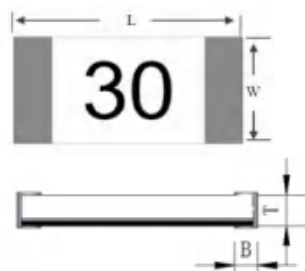
6. 工程圖和結構 / OUTLINE DRAWING AND STRUCTURE

6-1 工程圖（單位：mm） / Outline Drawing and Dimensions (Unit: mm)



12~15A

L(mm)	W(mm)	T(mm)	B(mm)
3.10±0.20	1.55±0.20	0.55±0.20	0.50±0.20



20~30A

L(mm)	W(mm)	T(mm)	B(mm)
3.10±0.20	1.55±0.20	0.80±0.20	0.65±0.20

6-2 結構 / Structure

Component	Material	Note
Substrate	Ceramic	
Terminations	Silver over-plated with tin (100%)	12~15A
	Silver over-plated with copper, nickel and tin	20~30A
Element	Silver or Silver/Palladium	12~15A
	Silver	20~30A

7. 產品特性 / PRODUCT CHARACTERISTICS

編號 No.	項目 Item	內容 Content	參考標準 Reference standard
1	絕緣阻抗 Insulation resistance	10,000 ohms minimum	MIL-STD-202G, Method 302 Test Condition A
2	可焊性 Solderability	T=240°C±5°C, t=3+0/-0.5s, Cover ≥95%	MIL-STD-202G, Method 208H
3	耐焊接熱 Soldering heat resistance	10 sec at 260 °C ΔR :<10%	MIL-STD-202G, Method 210F Test Condition B
4	熱衝擊 Thermal Shock	100 cycles between -65°C/+125°C 60 minutes ; each extreme ΔR :<10%	IEC 60068-2-14
5	高/低溫儲存 High/Low Temperature Storage	T=125°C±2°C , 96hours , T=-55°C±3°C , 96hours ΔR : <10%	IEC60068-2-1 / IEC60068-2-2
6	高溫操作 High Temperature Operating Life	T=70°C±2°C , 0.6In , 96hours ΔR : <10%	MIL-STD-202 Method 108
7	耐濕性 Humidity(steady state)	T=40°C±2°C , 90%~95%RH , 1000hours ΔR : <10%	MIL-STD-202 Method 103
8	鹽霧實驗 Salt spray	5% salt solution , 48hours ΔR : <10%	MIL-STD-202G,Method 101E, Test Condition B

8. 電氣特性 / ELECTRICAL CHARACTERISTICS

8-1 熔斷 / 電流特性：Pre-Arcing Time / Current Characteristic (limits)

RATED CURRENT	1 In	3.5 In
	Min.	Max.
12A~30A	4hrs	5 s

8-2 產品規格/Specification

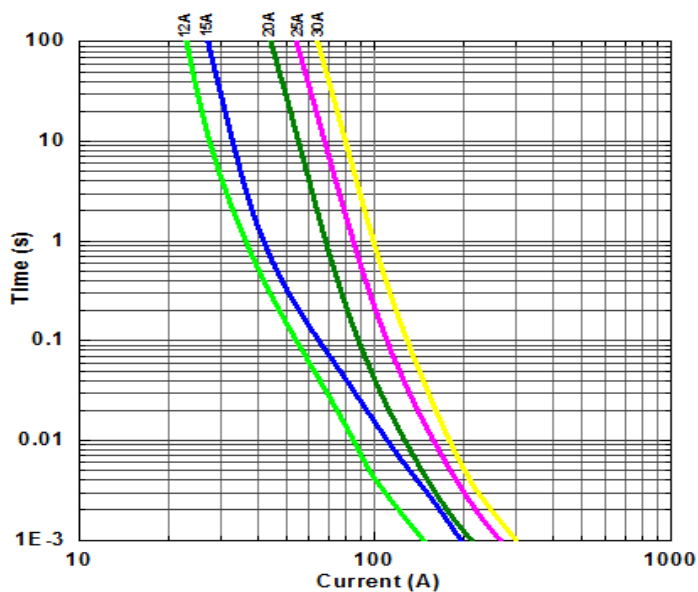
額定電流 Rated Current	額定電壓 Rated Voltage	分斷能力 Breaking Capacity	Typical Cold DCR (ohm)	Normal I ² T** (A ² s)
12 A	32V dc	150A@32V DC	0.005	20.0
15 A	32V dc		0.004	33.7
20A	32V dc/ 48V dc	300A@32V DC 200A@48V DC	0.0018	48.0
25 A	32V dc/ 48V dc		0.0013	70.0
30 A	32V dc/ 48V dc		0.0011	90.0

Measured at ≤10% rated current and 25°C ** Melting I²T at 10 times of rated current

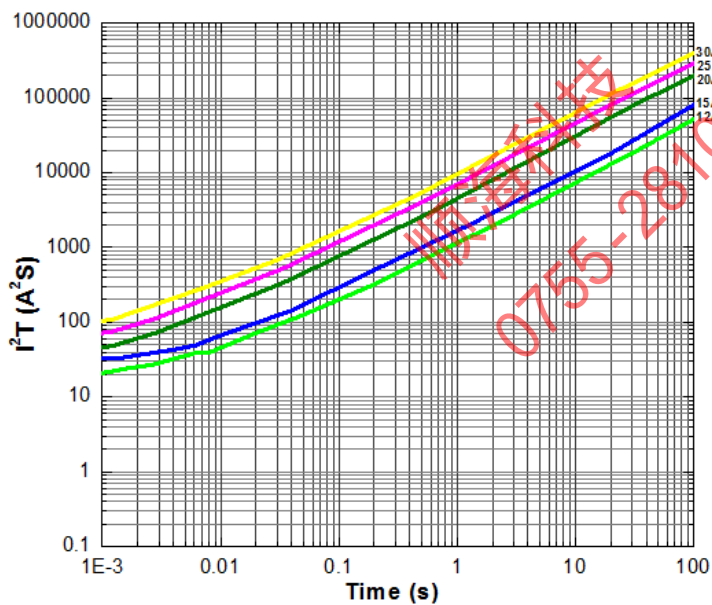
Fuse mounted on board with 3-oz Cu trace(12-30A)



8-3 I-t 圖/CHARACTERISTICS DIAGRAM(I-t)



8-4 I²t-t 圖/CHARACTERISTICS DIAGRAM(I²t-t)



9. 環境特性 / ENVIRONMENTAL CHARACTERISTIC

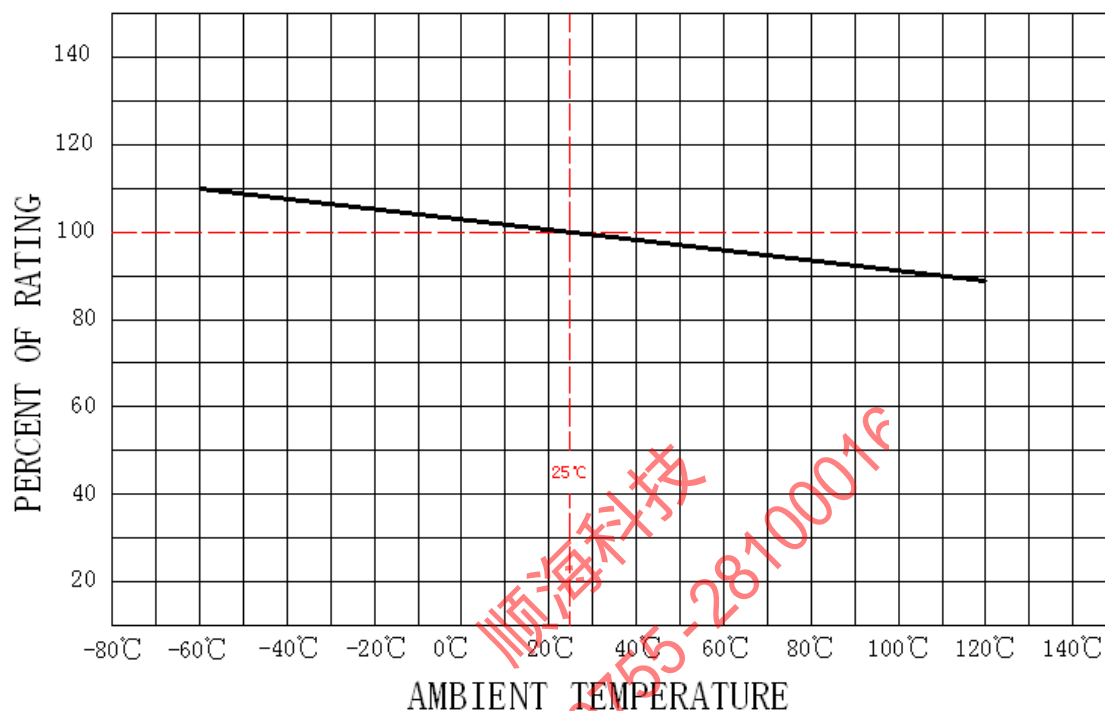
操作溫度範圍: $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$ / Operating Temperature: $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$

若貴司操作環境溫度超出 $25 \pm 5^{\circ}\text{C}$ 範圍，在選用保險絲規格時，需考慮操作環境溫度對保險絲的影響。
請參照：溫度-電流曲線圖。

When choosing the fuse's specification, if the operating environmental temperature beyond the scope from $20 \sim 30^{\circ}\text{C}$, you should consider the environmental temperature's affection to fuses. please refer:



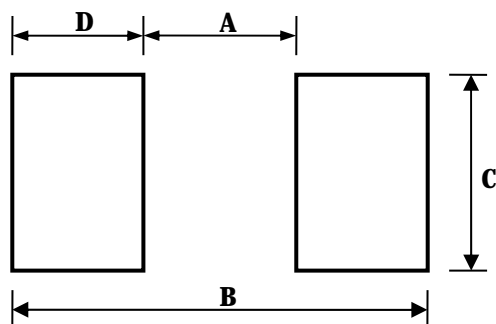
Temperature-Current curve:



10. 安裝方式及條件 / INSTALLATION WAY AND PARAMETERS

10-1 建議如下圖安裝方式安裝，並滿足所要求的尺寸。

Propose that the following picture installation way is installed, and satisfied the required size.



Dimensions	A(mm)	B(mm)	C(mm)	D(mm)
1206SF	2.00 ± 0.30	4.40 ± 0.50	2.40 ± 0.30	1.20 ± 0.30

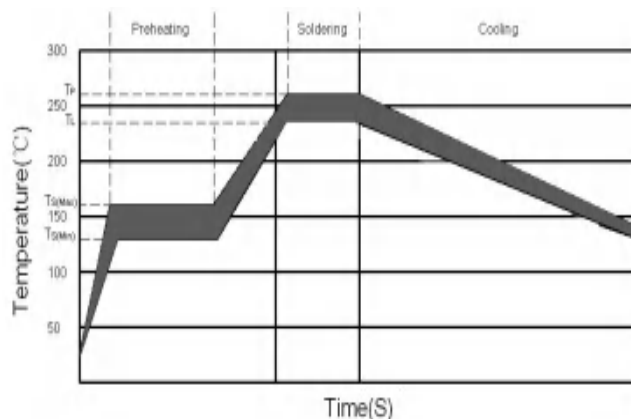
10-2 建議客戶焊接參數 / Recommended Customer Soldering Parameters



1. Infrared Reflow:
 Temperature : 260°C
 Time : 5sec Max.

Recommend Reflow profile

Reflow Condition		Pb-Free assembly
Preheating	-Temperature Min (Ts(min))	150 °C
	-Temperature Max (Ts(max))	200 °C
	-Time	60~120 Secs
Soldering	-Temperature (TL)(Liquidus)	235 °C
	-Time Max (TL)	20~30Secs
	-Peak Temperature (Tp)	Max 260 °C
	-Time Max (Tp)	5 Secs



2. Wave soldering
 Reservoir Temperature : 260°C
 Time in Reservoir : 10sec Max.
3. Hand Soldering :
 Temperature : 350°C
 Time : 5sec Max.

11.其他使用注意事項 / OTHER NOTICE IN USED

符合本公司可能的其它文件的要求。

It could be in conformance with another file which made by our company.

12.安全認證及編號 / STANDARDS AND APPROVALS

UL	NO. :	E56092
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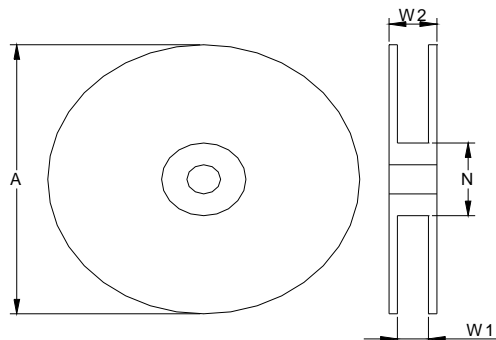
13. 包裝訊息 / PACKING INFORMATION

13-1 包裝數量、重量 / QUANTITY & WEIGHT

型號 Type Number	數量(pcs) Quantity(pcs)
1206SF	5,000

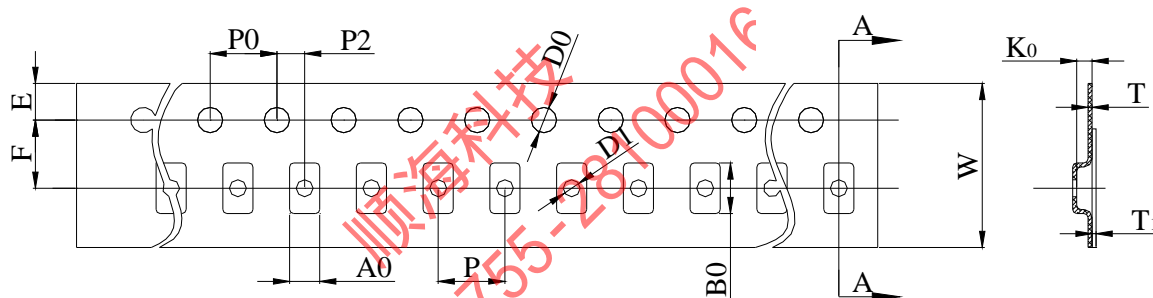


13-2 捲輪規格 / Reel & Tape specifications



Unit(mm)

A ± 2	N ± 2	W1 ± 1	W2 ± 1
178	58	9.5	12.5

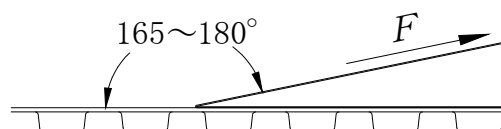


Unit(mm)

W	8.00 ± 0.20	D0	1.50 ± 0.10
P0	4.00 ± 0.10	F	3.50 ± 0.05
P	4.00 ± 0.10	E	1.75 ± 0.10
P2	2.00 ± 0.10	T	0.25 ± 0.05
A0	2.70 ± 0.10	T1	Max. 0.1
B0	3.50 ± 0.20	K0	0.75 ± 0.10

13-3 密封膠膜剝離強度要求 / Peeling Strength of Seal Tape

F = 剝離強度 : 0.1 – 1.0N (10 - 100gf)



14.其他 / OTHERS

14-1 如果在使用中有超出本規格書的要求，必須經由雙方協商確認。

In the event that an impropriety is found beyond this specification ,it shall be fixed by mutual agreement between the parties.



14-2 如果本規格書有不適當的情況，必須通過雙方協商並由本公司修改。

In the event that an impropriety is found in this specification , WALTER ELECTRONIC CO., LTD. shall amend it by mutual agreement between the parties.

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版次	製作	確認	審核
第3版	程正永 2019/11/11	饒 紅 2019/11/11	<i>Russel</i> 2019/11/15



UL iQ for Fuses



Fuses

E56092

Guide Information

SUZHOU WALTER ELECTRONIC CO LTD

NO.99 Xinli Road, Fenhu Technic Development Zone, Wujiang Jiangsu 215211 CN

1206SF

Supplemental micro fuses

<u>Size</u> mm(in)	<u>Amps</u> (A)	<u>Volts</u> (V)	<u>Interrupting</u> <u>Rating (A)</u>
3.1 x 1.55 x 0.55 (0.12 x 0.06 x 0.02)	1	63Vdc	50
	1.5	63Vdc	50

Report Date: 2018-01-16

Last Revised: 2018-01-15

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Fuses

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Guide Information

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1206SF(#) # is blank

Supplemental micro fuses

<u>Size</u> mm(in)	<u>Amps</u> (A)	<u>Volts</u> (V)	<u>Interrupting</u> <u>Rating (A)</u>
0.64 (0.03)	20 - 30	32Vdc	300
	20 - 30	48Vdc	200

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Last Revised: 2018-10-30

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Supplemental micro fuses

<u>Size</u> mm(in)	<u>Amps</u> (A)	<u>Volts</u> (V)	<u>Interrupting</u> <u>Rating (A)</u>
3.1 x 1.55 x 0.55 (0.12 x 0.06 x 0.02)	10.1 - 15	32Vdc	150
	8 - 10	32Vdc	150

Report Date: 2018-01-16

Last Revised: 2018-01-15

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