



功得電子工業股份有限公司
CONQUER ELECTRONICS CO.,LTD.

規格書

Spec. No. SFA046

Specification For Approval

品名：PTS/PTP-A 系列 慢速型瓷管保險絲

Type：PTS/PTP-A *Time-Lag Ceramic Tube Fuse Series*

www.conquer.com.tw

五股廠：新北市五股區五權五路26號(新北產業園區)
Wugu Factory:No.26, Wucyuan 5th Rd., Wugu Dist.,
(New Taipei Industrial Park) New Taipei City
24888, Taiwan
TEL:+886-2-89902189(Rep.)
+886-2-2CONQUER(Rep.)
FAX:+886-2-8990-2577

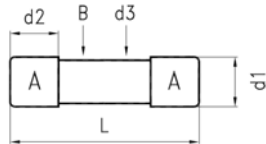
北投廠：台北市北投區立德路120巷15號
Peitou Factory:No. 15,Lite Road,Peitou,
Taipei11259, Taiwan.
TEL:+886-2-2895-8895(代表號)
FAX:+886-2-2895-8880



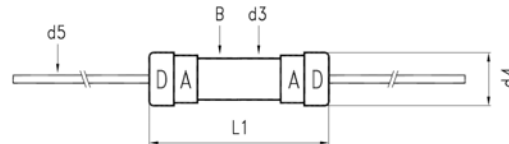
～ 筒管狀保險絲 ～

Fuses for Instrument, Power and Telephone (Non-indicating)

- 1 適用範圍: 本標準適用於保護儀器、電源供應器和電話機用之筒管式熔斷保險絲。
Available Range: For protecting instruments, power supplies and telephone sets.
- 2 形狀及尺寸如下圖 單位: mm
Shape & Size as following illustrations.



PTS Series



PTP-A Series

- 2.1 構造形狀 Structure & Shape : 如上圖 As shown in figure above
- 2.2 額定電壓 Rated Voltage: 250V/125V/32V
- 2.3 額定電流 Rated Current: 100mA~5A
- 3 材料 Material:
 - 3.1 筒管本體: 不透明瓷管不可破裂或變形。
Tube (Body): Non-Transparent ceramic tube fuse. No breaking or deformation is allowed.
 - 3.2 兩端銅蓋: 需以導電率良好之黃銅為材料。
Two brass end caps: Made of brass of good conductivity.
 - 3.3 銅蓋處理: 銅蓋部份鍍鎳, 標示最後若加 "S" 者, 表示須鍍銀。
Coating of brass caps: Plating the surface with nickel. If the indication is added with "S", it needs to be plated with silver.

NO.	Part Name 部品名稱	Volume 數量
A	Brass Cap - Nickel Plating 銅帽 - 鍍鎳	2
B	Ceramic Tube - Non-Transparent Ceramic Tube 瓷管 - 不透明瓷管	1
C	Fuse Element 可熔體	1
D	Cap-on Lead-Cap - Tinned Copper Wire and Cap 銅帽附腳 - 銅蓋加鍍錫銅線	2
d1	Dia. of Cap - 3.60±0.2mm 銅頭直徑	
d2	Height of Cap - 3.70±0.1mm 銅頭高度	
d3	Dia. of Ceramic - 3.00±0.2mm 瓷管直徑	
d4	Dia. of Cap - 3.90±0.2mm 銅帽直徑	
d5	Dia. of Lead Wire - 0.60±0.05mm 附腳直徑 Length of Lead Wire - 30±2mm 長度	
L	Body of Fuse - 10.50±0.75mm 本體尺寸	
L1	Total Length W/Cap-on on Both Ends 11.00±0.75mm	



4 電氣特性 Electrical Characteristics:

- 4.1 負載容量: 通過額定電流值 100 % (亦即 $1.0 \times I_n$ A), 能繼續通電至少 4 小時無任何熔化現象。
Loading Capacity: Loading 100% Rated Current (i.e. $1.0 \times I_n$ A) for flowing, and it's available to let current keep on flowing at least 4 hour without any melting. (Can keep 4 Hour minimum)
- 4.2 溫度特性: 通過額定電流值 100% (亦即 $1.0 \times I_n$ A) 1.5 小時, 繼續維持原加之電流, 每隔十分鐘測試一次, 連續測三次, 溫度不得升高, 若使用熱偶式測量方法。(Thermocouple method) 則本體溫升在 75°C 以下。
Temperature: Loading the 100 % ($1.0 \times I_n$ A) for 1.5 hours, keep testing it with the original current every 10 minutes. Continue to test it for 3 times. The temperature is not allowed to be higher. The main temperature rise is below 75°C by way of Thermocouple Method.
- 4.3 過載熔斷: 請參照下表。Melting due to overloading: Details as follows Table.

※最大熔斷時限 Operating Characteristics

安培數 Rating	100% Rating		200% Rating	
	Min.	Max.	Min.	Max.
100mA~5A	4 Hr			60 sec

5 機械特性 Mechanical Properties:

- 5.1 拉力強度: 當施加軸拉力 1.2 公斤於兩端附腳(或銅帽), 無鬆動或損壞現象發生。
Terminal Strength: Leads and/or caps are soldered (adhered) to withstand axial pulling force of 1.2kg without loosening or any harmfulness to firmly attachment.
- 5.2 彎折強度 Bending Strength:
(1) 銅帽附腳腳徑 1.0mm(含)以下, 經過兩次反向之彎折後(彎折 90 度再折回原位謂之一次彎折)不發生損壞。
Diameter of lead wire ≤ 1.0 mm: After two bends of opposite directions (bending through an angle of 90° and back is defined as one bend) of lead, no damage is to be visualized.

6 突波實驗: 為適應電感或電容性電路所產之暫態電流, 本品可承受最少 3ms 10 I_n 電流之突波。

Surge Test: In order to stand transient current caused by inductive or capacitive, the fuses are designed to have minimum clearing time of 3 millisecond at 1000% rated current.

7 脈波實驗: 本實驗乃保證產品之壽命與可靠度, 施加 60% 額定電流之脈波, 1 分鐘 ON, 2 分鐘 OFF, 1000 次以後, 本品不熔斷且內阻變化 20% 以下。

Cycle Test (On-Off Test): This test is designed to assure a reliable fuse, Controls are set giving 60% of rated ampere. 1 minute ON, 2 minutes OFF per time, the fuse will not open before 1000 times and the internal resistance change will be below 20%.

8 高溫效應: 本品置於 70°C 之高溫中, 4.1 之負載容量將降至室溫之 80%。

Derating Test: In an air circulating oven at 70°C , the carry capacity will be derated to 80% of current specified in item 4.1

Conquer Electronics Co., LTD.

No.26, Wucyuan 5th Rd., Wugu Dist., (New Taipei Industrial Park) New Taipei City 24888, Taiwan TEL:+886-2-8990-2189 (代表號) FAX:+886-2-8990-2577

Peitou Factory : No. 15, Lane 120, Lite Road, Peitou, 11259, Taipei, Taiwan. TEL: +886-2-2895-8895 (代表號) FAX:+886-2-2895-8880

E-mail: conqfuse@ms62.hinet.net Official Website: <http://www.conquer.com.tw>



9 遮斷能力 Interrupting rating:
50 amperes at 250V AC

10 包裝 : PTS-5000 PCS/盒 ; PTP-1000 PCS/盒 內盒印明下列標示:料號、額定(電壓、電流、遮斷能力)及安規名稱。包裝材料均符合RoHS或者HF的環保要求,且包裝材料不會和零件發生化學反應,造成不良。

Packing : PTS-5000 pcs in an inner box. ; PTP-1000 pcs in an inner box. The following items indicated on the box. Mark: Catalog number; ratings (voltage, current, interrupting capacity), and safety mark. The packing material conforms to ROHS or the HF environmental protection request. And the packing material can't have the chemical reaction with the components.

11 其他 Other:

11.1 除非另有指定,上述機械、電器特性,係於常溫,標準狀況下測試之。


Unless otherwise, specified, all tests to be performed at 25±5°C and 35-75% RH.

11.2 於標準狀況下儲放一年,本品乃確保上述機械與電氣之特性。



After one year's storage under normal condition, this item is guaranteed to meet the requirements mentioned above.

12 標記/安規認證 Mark/ Safety certification:

PTS Series

Mark Approvals		Nominal Resistance Cold Ohms
100 mA	**	4.2775
125 mA	**	2.8185
200 mA	**	1.7759
250 mA	**	1.5040
300 mA	**	0.8872
400 mA	**	0.2586
500 mA	**	0.2090
600 mA	**	0.1642
800 mA	**	0.1147
1 A	**	0.0866
1.5 A	**	0.0507
1.6 A	**	0.0479
2 A	**	0.0372
2.5 A	**	0.0256
3 A	**	0.0206
4 A	**	0.0173
5 A	**	0.0120

PTP-A Series

Mark Approvals			Nominal Resistance Cold Ohms
100 mA	**	**	4.2775
125 mA	**	**	2.8185
200 mA	**	**	1.7759
250 mA	**	**	1.5040
300 mA	**	**	0.8872
400 mA	**	**	0.2586
500 mA	**	**	0.2090
600 mA	**	**	0.1642
800 mA	**	**	0.1147
1 A	**	**	0.0866
1.5 A	**	**	0.0507
1.6 A	**	**	0.0479
2 A	**	**	0.0372
2.5 A	**	**	0.0256
3 A	**	**	0.0206
4 A	**	**	0.0173
5 A	**	**	0.0120

*: 有安規認證 Have safety certify

** : 有安規認證及銅帽上有安規印字標記 Have safety certify and safety mark on the cap

Conquer Electronics Co., LTD.

No.26, Wucyuan 5th Rd., Wugu Dist.,(New Taipei Industrial Park) New Taipei City 24888, Taiwan TEL:+886-2-8990-2189 (代表號) FAX:+886-2-8990-2577

Peitou Factory : No. 15, Lane 120, Lite Road, Peitou, 11259, Taipei, Taiwan. TEL: +886-2-2895-8895 (代表號) FAX:+886-2-2895-8880

E-mail: conqfuse@ms62.hinet.net Official Website: http://www.conquer.com.tw

13 系列品名列表 series model list :

品名	安培數
PTS ___A ___V(PF)	0.1A~5A
PTP-A ___A ___V(PF)	

例： PTS A V (PF)
 1 2 3 4

- 1 系列品名 Series Model : PTS/PTP-A
- 2 安培數 Ampere Rating : 0.1A~5A
- 3 伏特數 Voltage : 250V/125V/32V
- 4 無鉛標示 mean : Pb free (PF)

14 建議生產參數(無鉛焊錫使用) :

Recommended Process Parameters(for the action to Lead-free solder alloy) :

14.1 波峰參數 Wave Parameter	預熱溫度 Preheat temperature 最低溫度：100度 Temperature Minimum : 100°C 最高溫度：150度 Temperature Maximum : 150°C	錫槽溫度 Solder Pot Temperature 260度 Maximum 260°C Maximum 焊接時間 2~3 seconds Solder Dwell Time: 2~3 seconds
14.2 建議手持烙鐵焊接參數 Recommended Hand-Solder Parameters	烙鐵溫度：350°C +/-5°C Solder Iron Temperature : 350°C +/-5°C 加熱時間：3 seconds max. Heating Time : 3 seconds max.	

15 備註: Note:

15.1 建議焊接方式 Recommend soldering method:

