

Selection Guide 選用指南

(A) Rated Functioning Temperature (T_F, T_r) 額定動作溫度 (T_F, T_r)

The temperature at which a thermal cutoff changes its state of conductivity to open a circuit with detection current of 10mA or less as it loads. The temperature tolerance is $+0, -10^{\circ}\text{C}$.

當僅有不大于10 mA的偵測電流作為負載的情況下，使溫度保險絲改變其導電狀態之溫度。此溫度公差在 $+0, -10^{\circ}\text{C}$ 範圍以內。

(B) Cut-Off Temperature 實際動作溫度

Cut-off temperature is the actual operating temperature range when the thermal cutoff is made to operate inside a constant temperature oven, whose temperature is raised at the rate of 0.5 to $1^{\circ}\text{C}/\text{min}$, while detection current of 10mA or lower is applied.

溫度保險絲在以升溫速率為 $0.5 \sim 1^{\circ}\text{C}/\text{min}$ ，且以不高於10mA的偵察電流作偵測的烤爐中發生動作時的溫度。

(C) Holding Temperature (T_H, T_h, T_c) 保持溫度 (T_H, T_h, T_c)

The maximum temperature at which a thermal cutoff can be maintained while conducting rated current for 168 hours without functioning.

在溫度保險絲中，通以額定電流能夠連續維持168小時導通狀態。在此情況下，溫度保險絲所能夠承受的最高不致改變電氣流通狀態的溫度。

(D) Maximum Temperature (T_M, T_m) 最高極限溫度 (T_M, T_m)

The maximum temperature at which mechanical and electrical properties of a thermal cutoff can be maintained for 10 minutes without resuming conductivity after functioning.

溫度保險絲所能處在的最高溫度，在這個高溫狀態下，溫度保險絲已改變其電氣導通性，溫度保險絲在這個高溫持續達10分鐘而不致破壞其機械性能和電氣特性。

Storage Conditions 儲存條件

-10°C to $+40^{\circ}\text{C}$ and relative humidity of 30% to 75%.

Store where no rapid change of temperature or humidity exist, and no direct sunlight is applied. The location must be free from vibration and shock.

溫度 $-10^{\circ}\text{C} \sim 40^{\circ}\text{C}$ ，相對濕度30%~75%。存儲在溫度和濕度相對穩定的環境，無陽光直接照射，存儲位無震動。

Packing 包裝

Poly bag of 100 fuses / 散裝每膠袋100個保險絲

10 poly bags/box: total of 1000 fuses / 每盒10袋共1000個保險絲

Standard 標準

UL 60691 / IEC 60691

Instruction Manual 使用說明

Lead wire process 引線處理

A. The lead wire should be bent at a distance of 3 mm or more from the fuse body.

引線進行曲折加工時，請先在離本體3mm以上處固定後再進行曲折加工。

B. Avoid applying excessive force that may pull, push or twist the lead wires. 作業時，不要向引線施加過大的拉力，推力或扭力。

Mounting 安裝

A. The thermal cutoff can be mounted by soldering, caulking, or welding. 溫度保險絲可以用焊接、鉚合等方式進行安裝。

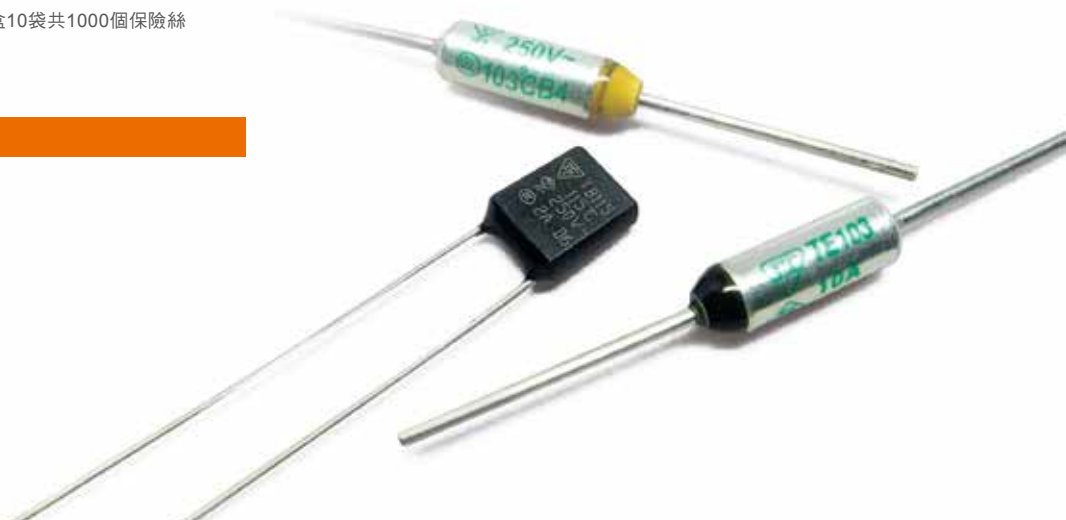
B. It is recommended that the connecting position at the lead of resin-sealing side should be 5 mm or more from the body of thermal cutoff. 建議使引線（樹脂封口側）的安裝位置離開本體5mm以上。

C. Mounting by soldering may cause excessive heat, which results in thermal cutoff malfunctioning. Thus, use heat-radiating clip near the fuse body to allow heat dissipation. Also, soldering time should not exceed below chart specifications. 如果是用焊接方式安裝：為防止焊接時的熱量引發保險絲動作，在焊接時，建議用散熱夾，夾在保險絲外殼附近，以便熱量散發，並在規定的焊錫時間內完成。具體焊錫時間如下表：

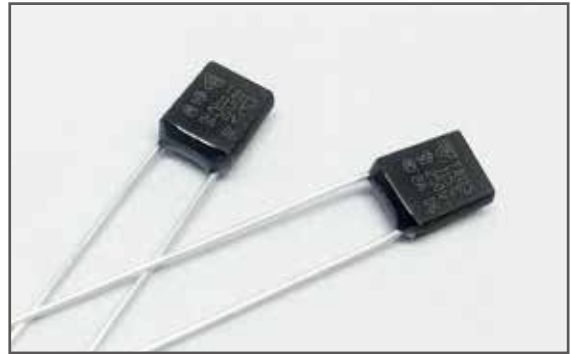
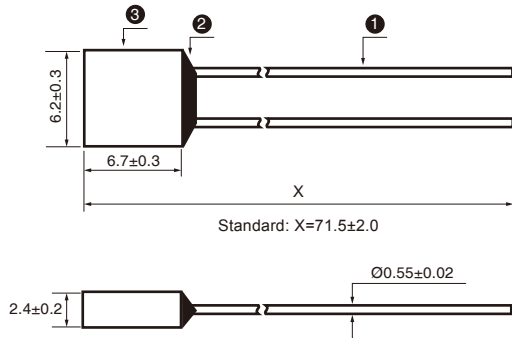
Tf Temp Tf 溫度	Lead Distance 引線距離	Soldering Time 焊錫時間	10mm	15mm	20mm	Soldering Conditions 焊錫條件
94°C Down / 94°C以下		1S	2S	3S		Soldering Temperature: 300°C 焊錫溫度: 300°C
94°C~100°C		2S	3S	4S		
101°C~130°C		3S	4S	5S		
Over 130°C / 130°C以上		4S	5S	5S		

D. Thermal cutoff fuse is a heat sensitive device. Mounting by manual soldering iron is recommended. Wave soldering is not recommended.

溫度保險絲為熱敏感元件，安裝時建議用手工過錫或烙鐵焊錫，不建議使用波峰焊。



Dimensions / 尺寸圖 (Unit / 單位:mm)

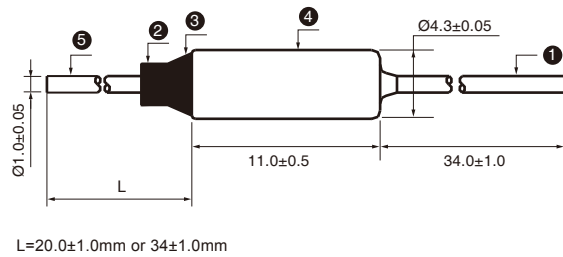


No.	Component / 元件	Material / 材質
①	Lead / 引線	Tinned Copper Wire / 鍍錫銅線
②	Sealing Resin / 封口樹脂	Epoxy Resin / 環氧樹脂
③	Casing / 外殼	Plastic / 塑膠

Electrical Characteristics / 電氣特性

Type 型號	(A) Rated Functioning Temperature 額定動作溫度 (T _F , T _F) (°C)	(B) Cut-Off Temperature 額定動作溫度 (°C)	(C) Holding Temperature 最高維持溫度 (T _H , T _H , T _C) (°C)	(D) Maximum Temperature Limit 最高極限溫度 (T _M , T _M) (°C)	Electrical Rating 電氣額定值	Safety Approvals 安全認證				
					Voltage(V)/額定電壓 (V _{AC})	C _{RU} US	D _E	S	CCC	PS JET
TB102	102	97±2	76	180	250V		●	●	●	●
TB115	115	112±3	85	180	250V	●	●	●	●	●
TB125	125	121±3	97	180	250V	●	●	●	●	●
TB130	130	126.5±3	102	180	250V	●	●	●	●	●
TB150	150	146±2	120	180	250V		●	●	●	●

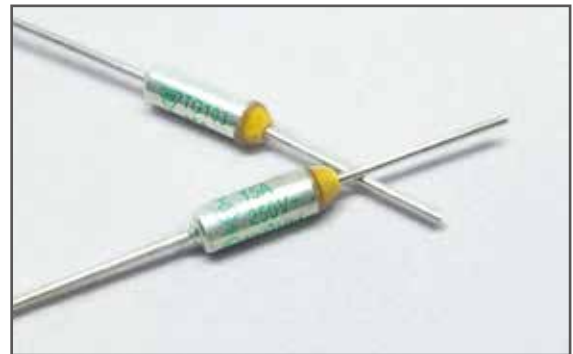
Dimensions / 尺寸圖 (Unit / 單位:mm)



TE Series Rating 10A 250V AC



TG Series Rating 15A 250V AC



No.	Component / 元件	Material / 材質
①	Lead 1 / 引線1	Tinned Copper Wire / 鍍錫銅線
②	Isolation Tube / 絕緣管	Ceramic / 陶瓷
③	Sealing Resin / 封口樹脂	Epoxy Resin / 環氧樹脂
④	Casing / 外殼	Silver-Plated Copper / 銅鍍銀
⑤	Lead 2 / 引線2	Silver-Plated Copper / 銅鍍銀

Electrical Characteristics / 電氣特性

Type 型號	(A) Rated Functioning Temperature 額定動作溫度 (T _F , T _I) (°C)	(B) Cut-Off Temperature 額定動作溫度 (°C)	(C) Holding Temperature 最高維持溫度 (T _H , T _h , T _c) (°C)	(D) Maximum Temperature Limit 最高極限溫度 (T _M , T _m) (°C)	Electrical Rating 電氣額定值	Safety Approvals 安全認證				
					Voltage(V)/額定電壓 (V _{AC})	UL [®]	DE	S	CCC	PS JET
TE/TG 66	66	64±2	42	200	250V	●	●	●	●	●
TE/TG 77	77	74±2	48	200	250V	●	●	●	●	●
TE/TG 87	87	81±2	52	200	250V	●	●	●	●	●
TE/TG 94	94	91±2	62	160	250V	●	●	●	●	●
TE/TG 99	99	96±2	68	200	250V	●	●	●	●	●
TE/TG 103	103	97±2.5	68	200	250V	●	●	●	●	●
TE/TG 113	113	108±2	81	200	250V	●	●	●	●	●
TE/TG 116	116	111±2.5	83	200	250V	●	●	●	●	●
TE/TG 121	121	118.5±2.5	86	200	250V	●	●	●	●	●
TE/TG 128	128	126±2	100	250	250V	●	●	●	●	●
TE/TG 139	139	135±2	109	200	250V	●	●	●	●	●
TE/TG 142	142	135±2	110	200	250V	●	●	●	●	●
TE/TG 147	147	142±2	117	250	250V	●	●	●	●	●
TE/TG 152	152	150±2	122	250	250V	●	●	●	●	●
TE/TG 169	169	164±2	139	300	250V	●	●	●	●	●
TE/TG 184	184	181.5±2	154	300	250V	●	●	●	●	●
TE/TG 187	187	181.5±2	154	300	250V	●	●	●	●	●
TE 216	216	213±2	186	300	250V	●	●	●	●	●
TG 216	216	213±2	186	300	250V	◎	●	●	●	●
TE/TG 240	240	236±2	200	300	250V	●	●	●	●	●

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