

# F5K series Thermal-Links/Resistor Assemblies

## F5K系列 溫度保險絲附電阻器

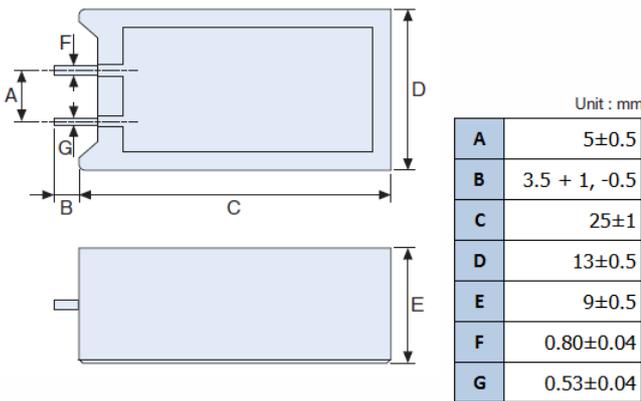


- Thermal-Links/Resistor Assemblies is a product that combined with thermal-links of fusible alloy type and 5W wire wound resistor type.
  - F5K is RoHS compliance product, non-Pb and non-Cd contains.
  - F5K got excellent interception characteristic when abnormality overload happened.
  - Especially, F5K adopted excellent characteristic resistive element against the In-rush current, and it is the best for preventing In-rush current.
- 可熔合金型溫度保險絲和 5W 卷線電阻器組成一體的製品。
  - F5K 是不含鉛、鎘的製品。(RoHS 對象製品)
  - F5K 能在超負荷等異常時，發揮它的優越切斷特性。
  - 特別地採用了對突入電流有優越性能的電阻元素，最適合防止突入電流。

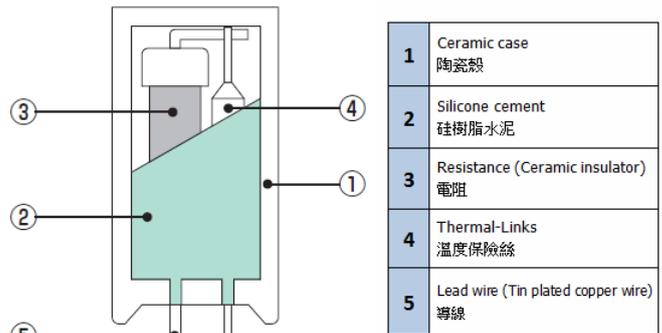


✓ Approved by UL/C-UL, TUV  
 ✓ 已通過認證: UL/C-UL, TUV

### Dimension 尺寸



### Construction 構造圖

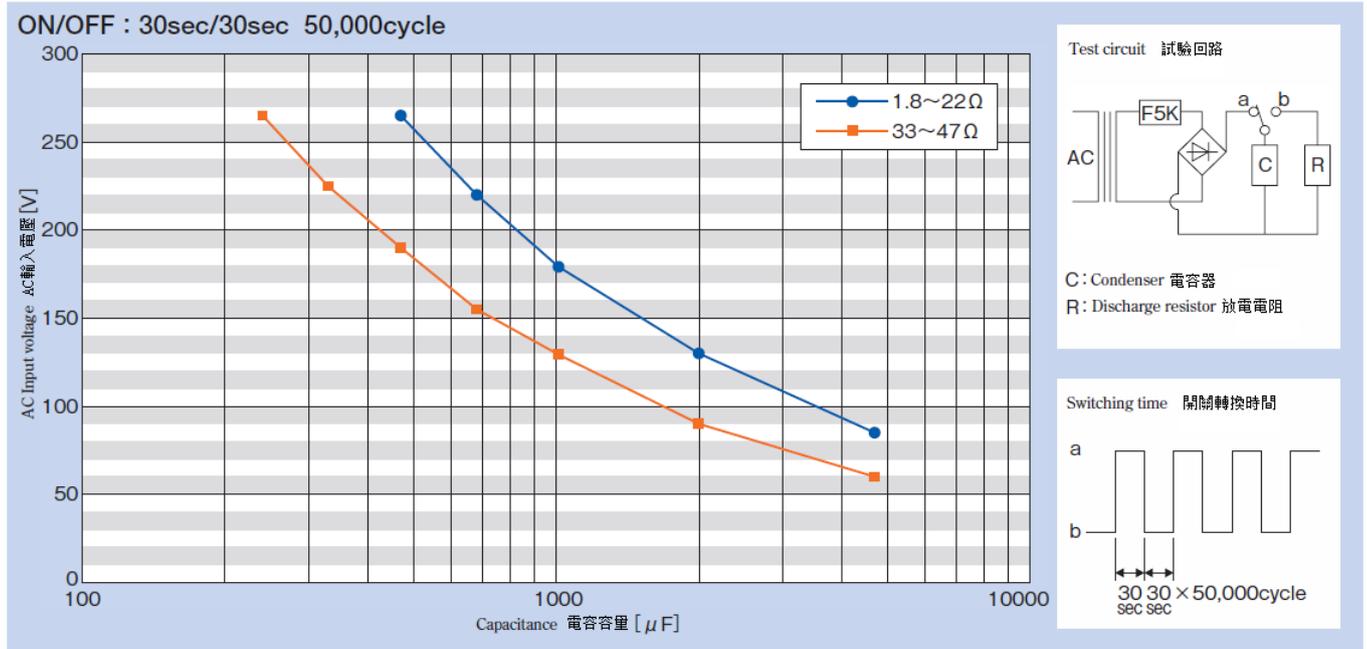


### Models Component 型號構成

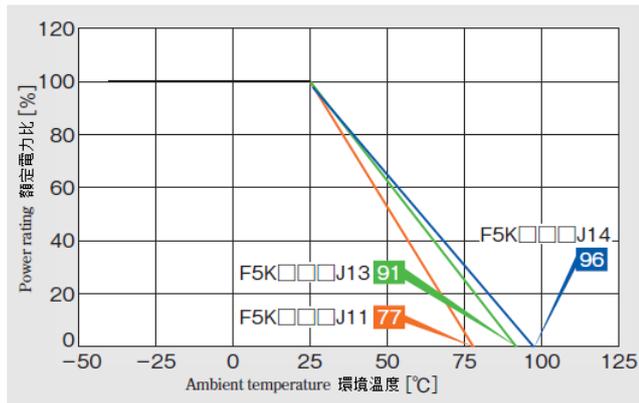


### Ratings 額定

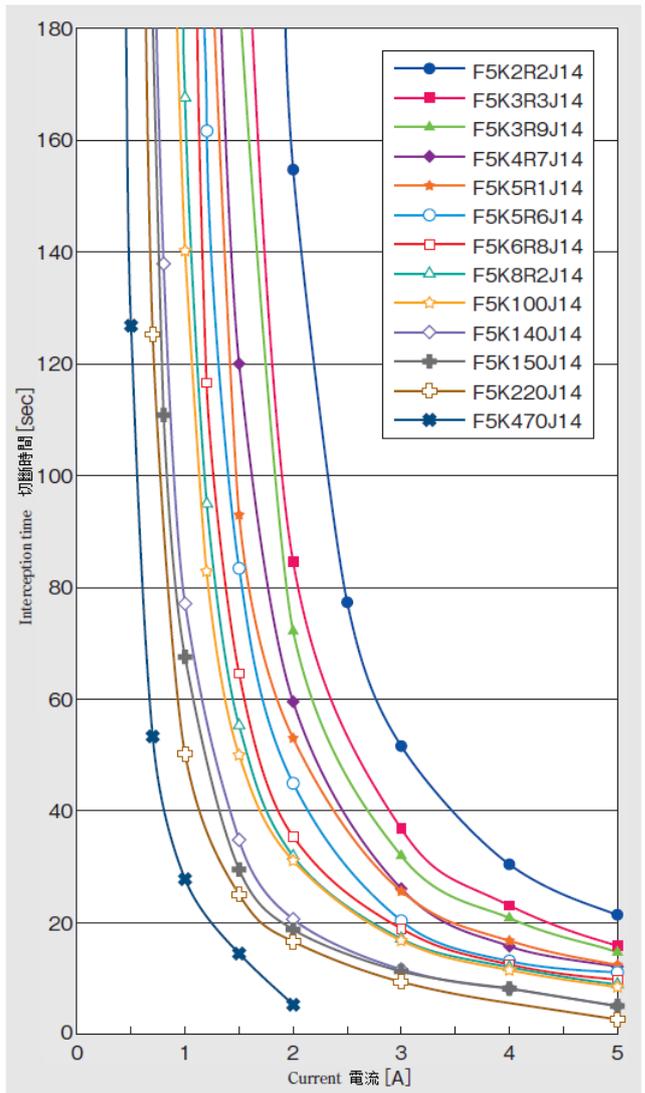
Model Name 型號	Rated power 額定電力 (25°C)	Nominal resistance value 額定電阻值	Resistance tolerance 電阻值容許偏差	Thermal-Links 溫度保險絲			UL C-UL	TUV	
				Model Name 型號	Rated functioning temp. 額定動作溫度 (Tf)	Rated voltage 額定電壓			Rated current 額定電流
F5K □ □ □ J11	1.3W	1.8~820Ω	± 5%	V110	117°C	AC250V	2A	-	-
F5K □ □ □ J13	1.6W	1.8~820Ω		V5F	136°C	AC250V	3A	○	○
F5K □ □ □ J14	2.1W	1.8~820Ω		V7F	145°C	AC250V	3A	○	○



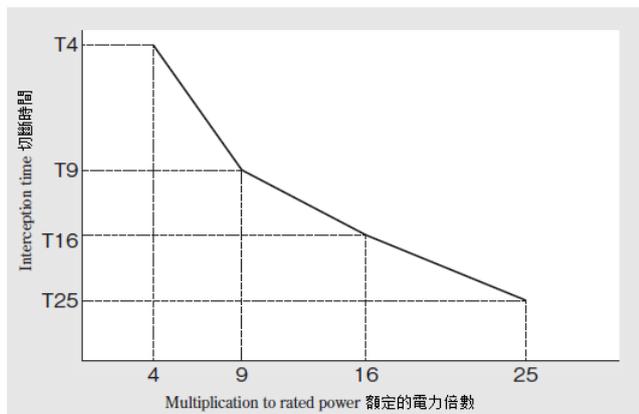
Derating Curve 降低負荷曲線



Interception Characteristics 切斷特性



Interception Time vs. Wattage 切斷性能



Interception time—max sec. 切斷時間 (秒以內)			
T4	T9	T16	T25
1 hour or less 1 小時以內	90	55	40

Performance 其他性能

Test Characteristics 切斷時間 (秒以內)	Test Methods 試驗方法	Specifications 規格									
Resistance value 電阻值	<p>The following DC voltage is applied across lead terminals for measurements. 導線端子間施加下表的直流電壓進行測定。</p> <table border="1"> <thead> <tr> <th colspan="2">Nominal resistance value range 額定電阻值範圍</th> <th>Max. applied Voltage 最高承受電壓</th> </tr> </thead> <tbody> <tr> <td>1 and over 1 以上</td> <td>less than 10 10 未滿</td> <td>0.3</td> </tr> <tr> <td>10 and over 10 以上</td> <td>less than 100 100 未滿</td> <td>1</td> </tr> </tbody> </table>	Nominal resistance value range 額定電阻值範圍		Max. applied Voltage 最高承受電壓	1 and over 1 以上	less than 10 10 未滿	0.3	10 and over 10 以上	less than 100 100 未滿	1	Resistance shall be within $\pm 5\%$ of nominal resistance value. 在 $\pm 5\%$ 以內
Nominal resistance value range 額定電阻值範圍		Max. applied Voltage 最高承受電壓									
1 and over 1 以上	less than 10 10 未滿	0.3									
10 and over 10 以上	less than 100 100 未滿	1									
Functioning temperature 動作溫度	<p>Soaking the product in the oil bath of temperature rising at 0.5/per min. Then measure the temperature of oil. The measure beginning temperature is <math>-20^{\circ}\text{C}</math> of rated functioning temperature, and the detection current is assumed to be 10mA or less. 製品在每分鐘 <math>0.5^{\circ}\text{C}</math> 的油槽中，製品動作時油槽內溫度的測定。 測定開始定額溫度為 <math>-20^{\circ}\text{C}</math>，檢測電流在 10mA 以下。</p>	F5K□□□J11: $117+0-7^{\circ}\text{C}$ F5K□□□J13: $136+0-7^{\circ}\text{C}$ F5K□□□J14: $145+0-7^{\circ}\text{C}$									
Insulation resistance 絕緣電阻	Between body and lead terminals 主體、導線端子間	DC500V is impressed and measured between metallic foil wrapped on the case, and lead terminals. 在水泥殼上的金屬箔與導線端子間施加 DC500V 進行測定。	Insulation resistance shall be $1000\text{M}\Omega$ or above. 在 $1000\text{M}\Omega$ 以上								
	Between body lead terminals 兩根導線端子間	DC500V is impressed for and measured between lead terminals after functioning temperature test. 動作溫度試驗後，導線端子間施加 DC500V 進行測定。	Insulation resistance shall be $0.2\text{M}\Omega$ or above. 在 $0.2\text{M}\Omega$ 以上								
Dielectric strength 耐電壓	Between body and lead terminals 主體、導線端子間	AC1.5kV is impressed for 1 minute and measured between metallic foil wrapped on the case, and lead terminals. (Cutoff current 0.5mA) 在水泥殼上的金屬箔與導線端子間施加 AC1.5kV 進行 1 分鐘測定。(檢測電流 0.5mA)	The products shall withstand for 1 minute. 能承受 1 分鐘								
	Between body lead terminals 兩根導線端子間	AC500V is impressed for 1 minute and measured between lead terminals after functioning temperature test. (Cutoff current 0.5mA) 動作溫度試驗後，導線端子間施加 AC500V 進行 1 分鐘測定。(檢測電流 0.5mA)	The products shall withstand for 1 minute. 能承受 1 分鐘								
Temperature coefficient of resistance 電阻溫度系數	Room temperature / $70^{\circ}\text{C}$ up 室溫 / $70^{\circ}\text{C}$ 以上	$\pm 250\text{ppm}/^{\circ}\text{C}$									
Short time overload 短時間過負荷	Rated power x 10, for 5 sec. 額定電力 x 10 倍，承受 5 秒鐘	$\pm (2\%+0.05\Omega)$									
Soldering heatproof 焊接耐熱性	$265^{\circ}\text{C} \pm 5^{\circ}\text{C}$ , 10 sec.	$\pm (1\%+0.05\Omega)$									
Terminal strength 端子強度	Pull: 20N, 1 min. Bending: $90^{\circ}\text{C}$ , 1 cycle 拉力: 20N, 1 分鐘 扭曲: $90^{\circ}\text{C}$ , 1 週期	No mechanical damages 無斷線、鬆動、破損									
Humidity resistance 耐濕性	$40^{\circ}\text{C}$ , Humidity 90~95%RH, 10000 hours $40^{\circ}\text{C}$ ，濕度 90~95%RH，10000 小時	$\pm (2\%+0.05\Omega)$									
Load life 負荷壽命特性	Rating load 1000 hours, 1.5 hours ON / 0.5 hours OFF cycle 額定負荷 1000 小時，1.5 小時開/0.5 小時閉的週期	$\pm (3\%+0.05\Omega)$									