EN: This Datasheet/Document is presented by the manufacturer.

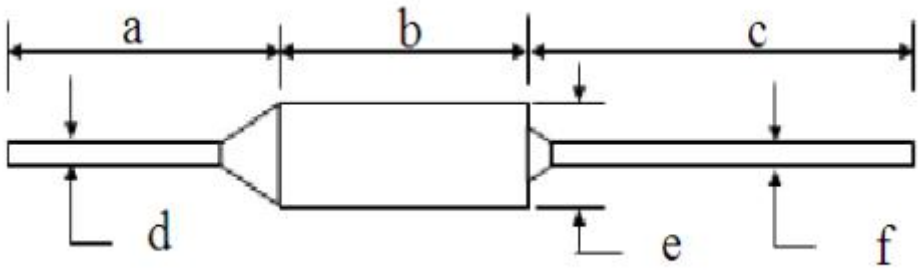
Please visit our website for pricing and availability at www.hestore.hu.

1. 产品介绍(Product introduction)

AUPO 温度保险丝是一种不可复位型热敏保护器件，用于家用电器及工业设备的过热保护，当周围温度升高到某不正常温度时，温度保险丝感受外界温度状态，将电路切断。它的全密封结构确保其熔断系统稳定可靠，不受外界潮湿等恶劣环境影响。它的主要特点是：对外界温度感受灵敏；动作温度准确、稳定；体积小，密封式结构；性能可靠，已获多个国际安全标准认证。

AUPO thermal cutoffs is a Non-resettable part for temperature protection, it is used in household electric appliances and industrial equipment for temperature protection: When ambient rises to an abnormal temperature, the thermal cutoffs sensors ambient temperature and function to fusing off the circuit. sealed structure of thermal cutoffs insures the function system's stability and reliability, and avoid influencing by ambient humidity etc. thermal cutoffs characters are: Extremely sensitive to ambient temperature; Precise and Stable for functioning temperature; Small size, Sealed structure; Reliable, Certifications by various international safety standards.

2. 外观和外形尺寸(The appearance and dimension)



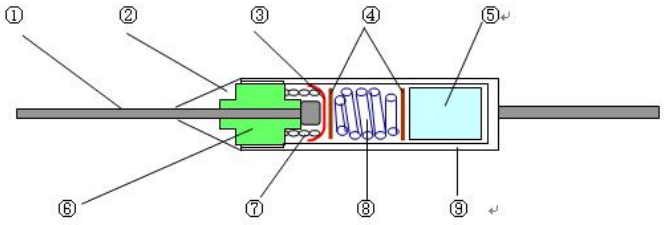
尺寸（mm）

型号 Model NO:	a	b	c	d	e	f
BF***X	(8-68)±1.0	11±1.0	(8-70)±1.0	Φ1.0±0.1	Φ4.0±0.1	Φ1.0±0.1

3. 型号及主要技术参数(Technical parameters)

产品型号: Model No:	产品料号: Product No:	额定动作温度 Tf (℃)	实测动作温度 Fusing-off Temp		保持温度 Th（℃）			极限温度 TM（℃）			额定电流 Ir (A)	额定电压 Ur (Vac)
			IEC Standard	Corp Standard	UL	CCC	VDE OVEN	UL	CCC	VDE		
BF73X		73	63-73	70±2	58	58	45	175	150	175	16A	250V
BF77X		77	67-77	74±2	62	62	51	175	150	175	16A	250V
BF84X		84	74-94	82±2	69	69	58	175	150	175	16A	250V
BF94X		94	84-94	90±2	79	79	64	175	150	175	16A	250V
BF99X		99	89-99	95±2	84	84	71	175	150	175	16A	250V
BF104X		104	94-104	101+2/-3	90	90	79	175	150	175	16A	250V
BF113X		113	103-113	110±2℃	98	98	84	175	150	175	16A	250V
BF117X		117	107-117	114±2℃	102	102	92	175	160	175	16A	250V
BF121X		121	111-121	118±2℃	106	106	94	175	160	175	16A	250V
BF133X		133	123-133	131+2/-3	119	119	104	215	160	215	16A	250V
BF142X		142	132-142	138+2/-3	127	127	114	215	160	215	16A	250V
BF157X		157	147-157	154+2/-3	142	143	127	250	172	250	16A	250V
BF172X		172	162-172	169+2/-3	157	157	144	260	189	260	16A	250V
BF184X		184	174-184	181±2	169	169	159	260	210	260	16A	250V
BF192X		192	182-192	189±2	177	177	164	390	300	390	16A	250V
BF216X		216	206-216	212±2	N	N	N	N	N	N	16A	250V
BF229X		229	219-229	226±2	201	201	201	390	380	390	16A	250V
BF240X		240	230-240	236±2	201	201	201	450	380	450	16A	250V
BF257X		257	247-257	254±2	200	N	N	450	N	N	16A	250V

4．产品结构说明（Structural instruction ）



1) 引线（Lead wire）
2) 封口树脂(Epoxy)
3) 星状簧片(Star contact)
4) 圆片（Discs）
5) 感温体(Thermal pellet)
6) 陶瓷绝缘子(Ceramic bushing)
7) 弹簧 A（Spring A）
8) 弹簧 B(Spring B)
9) 金属外壳（Metal case）

5. 最终检验（Final inspection）

检验项目 Inspection items	样本量 sample qty	检验工具 Inspection tools	检验标准 Inspection standard	允收标准 Acceptance standard	检验方法 Test method
导 电 electric conduction	全数检验 Full inspect	导电测试台 Conducting test bench	产品能导通且电阻值不超过规定的上限值（＜2mΩ） The product is conductive but resistance not exceed the upper limit. （＜2mΩ）		用相应的比对电阻调整导电测试台后，逐一测试。 Adjust conducting test bench with corresponding contrast resistance and test one by one
动作温度 (Tf)	N	硅油池 Silicone oil bath	均应在相应产品的动作温度规格范围内 All should be within the specified Tf temp. of corresponding products	C=0	将产品放入硅油池中，在起始温度（为额定动作温度-12℃）恒温 5 分钟后，以 0.5－1℃/min 的速率升温，记录产品熔断时的温度，检测电流在 10mA 以下 TCO is tested in the oil bath of which the starting temperature(Tf minus 12 ℃) maintains 5 minutes and the temperature rises at 0.5-1℃ /min(testing current less than 10mA). Record down the temperature when TCO fuses off.
耐压 （两极间） Voltage withstand (between two poles)	N	高压机 High pressure machine	不得有击穿现象 No breakdown phenomenon	C=0	测试熔断后的产品，在二引脚之间施加 500V 电压 1min（漏电流：2 mA） After testing fusing-off products, 500V voltage is applied to between the two pins for 1min (leakage current: 2 mA)
绝缘性 Insulating property	N	绝缘电阻表 Insulation resistance meter	应≥0.2MΩ	C=0	将测试熔断后的产品，用绝缘电阻表测量两极间绝缘电阻（DC500V） Test the insulation resistance (DC500V) of the two electrodes with insulation resistance meter.
耐扭转试验 Torsion resistance test	1/5 N	目 视 Visual inspection	环氧树脂无脆裂且引脚无断裂现象 Epoxy resin no brittle crack and no fracture of lead	C=0	取未经测试的成品，A 引脚在距离环氧树脂约 8mm 处，B 引脚在距离外壳 5mm 处折成直角后（避免引脚根部受力），以根部部分的引脚为轴来回扭转 180° ×1time Prepare not-tested goods, hold the lead at 10mm distance from its root and bend into 90° , (avoid stress on the root of the lead), 180° back and forth torsion for once based on lead of root
抗拉力测试 Tensile test	1/5 N	拉力测试器、砝码 Tension tester, balancing weight	环氧树脂无脆裂且引脚无断裂现象 Epoxy resin no brittle crack and no fracture of lead	C=0	将试样固定在拉力试验器上，引脚垂直向下，在引脚上悬挂 4lbs 重物一分钟。 fix the sample in tension tester, with its lead vertical downward,hanging 4lbs weight for 1 minute

备注：N:若批量小于等于 1200pcs，抽取 10pcs；1201～3200pcs 抽取 15pcs，3201~20000 pcs 抽取 20pcs，＞20000 pcs 按 0.1%

Note: If the batch volume is no more than 1200pcs, sampling volume is 10pcs; for 1201 ~ 3200pcs, it is 15pcs, for3201~20000pcs, it is 20pcs, for >20000pcs, it is 0.1%;

6.型式试验（Type test）

检验项目 Inspection items	样本量 sample qty	检验工具 Inspection tools	检验标准 Inspection standard	允收标准 Acceptance standard	检验方法 Test method
动作温度 (Tf)	3	硅油池 Silicone oil bath	均应在相应产品的动作温度规格范围内 All should be within the specified Tf temp. of corresponding products	C=0	将产品放入硅油池中，在起始温度（为额定动作温度-12℃）恒温 5 分钟后，以 0.5－1℃/min 的速率升温，记录产品熔断时的温度,检测电流在 10mA 以下 TCO is tested in the oil bath of which the starting temperature(Tf minus 12℃) maintains 5 minutes and the temperature rises at 0.5-1℃/min(testing current less than 10mA). Record down the temperature when TCO fuses off.
极限温度 (Tm)	3	恒温\ 绝缘电阻表\高压机 Thermostat \ insulation resistance meter \ high pressure machine	试样无闪络、击穿 绝缘电阻两极>0.2MΩ 绝缘电阻极壳>20MΩ no flashover or breakdown, 2 poles of insulation resistance >0.2M insulation resistance of pole shell >20M	C=0	恒温箱温度控制在 TM+0/-5℃，试样放入后在此温度保持 10 分 钟，随后做绝缘及耐压试验，试验结束后，试样应无闪络，击穿 或重新接通 Thermostat temperature control at TM+0/-5℃, put the sample inside for 10 min, then conduct tests of insulation and voltage withstand. After the testing, check and make sure there is no flashover, breakdown or re-conduction.
保持温度 (Th)	3	恒温箱\电子负载仪 Thermostat\ electronic load meter	加载额定电流、持续进行 1 6 8 小时，其产品不能 断开 Load with rated current for continuous 168 hours, the product not disconnected	C=0	试样放入恒温箱内，使恒温箱温度保持在 Th+0/-6℃的范围内稳定，测温仪的热电偶贴在温度保险丝外壳表面，通过额定 电流，持续进行 1 6 8 小时，判 断其是否会断路 Sample put in the thermostat and maintain temperature at Th+0 / 6 ℃. Attach thermocouple to the surface of product shell, loaded with rated current for continuous 168 hours and check it is connected
老化 Aging	15	恒温箱 Thermostat	最后阶段，试样全部断开 all samples disconnected in the final stage	C=0	第一阶段：样品在 Tf-15K 下放 置 3 周，试验结束时至少 50%以 上试样未动作；第二阶段：样品 在 Tf-10K 下放置 2 周；第三阶 段：样品在 Tf-5K 下放置 1 周； 第四阶段：样品在 Tf-3K 下放置 1 周；第五阶段：样品在 Tf+3K 下放置 24 小时； 1st stage: samples stored condition of Tf-15K for 3 weeks, at the end of testing, at least 50% samples not fuse off; 2nd stage: samples stored in condition of Tf-10K for 2 weeks; 3rd stage: samples stored in condition of Tf-5K for 1 week; 4th stage: samples stored in Tf-3K for 1 week; 5th stage: samples stored in Tf+3K for 24 hours;

7．参数说明(Parameter specifies)

额定动作温度 **Rated functioning temperature** （T_f）	温度保险丝按安全标准规定方法测试，改变其导电状态的温度。按基于 IEC60691 的安规标准规定，温度保险丝必须在上述温度+0/-10℃范围内动作。简称 T_f. The temperature at which a Thermal Cutoff changes its state of conductivity to open circuit detection current. The tolerance according to IEC60691 is form +0 to -10 ℃ .
实际动作温度 **Fusing-off**	温度保险丝在硅油池内以每分钟 0.5 - 1.0℃速率升温，检测电流小于 10mA 条件下所测得的熔断温度。它是温度保险丝的实际动作温度。

temperature	The Fusing-off temperature indicates valun measured in silicon oil with a temperature increased by 0.5-1℃ per minute and a detective current 10mA or less.
保持温度 **Holding temperature**（ T_h ）	温度保险丝在通过额定电流时，能保持 168 小时而不会改变其导电状态的最高温度. 用 T_h 表示。 The maximum temperature at which a Thermal Cutoff will not cause a change in state of conductivity to open circuit while conduction rated current for 168H .This rating is required by safety standards based on IEC60691.
极限温度 **Maximum temperature limit** （ T_m ）	温度保险丝能承受 10 分钟而不会发生重新接通现象的最高温度。简称为 T_m. The maximum temperature at which a Thermal Cutoff can be maintained for 10 minutes without reclosing. This rating is required by safety standards based on IEC60691.
额定电流 **Rated current** (Ir)	温度保险丝所能承载的最大电流。 The allowable maximum current which a Thermal Cutoff is able it carry
额定电压 **Rated voltage** （ Ur ）	温度保险丝最高工作电压. The allowable maximum voltage which a Thermal Cutoff is able it carry

8．安全认证编号 （Safe Certification Numbers）

型 号 Model No	UL/CUL	VDE	CCC
BF***X	E140847	40005418	2003010205052188

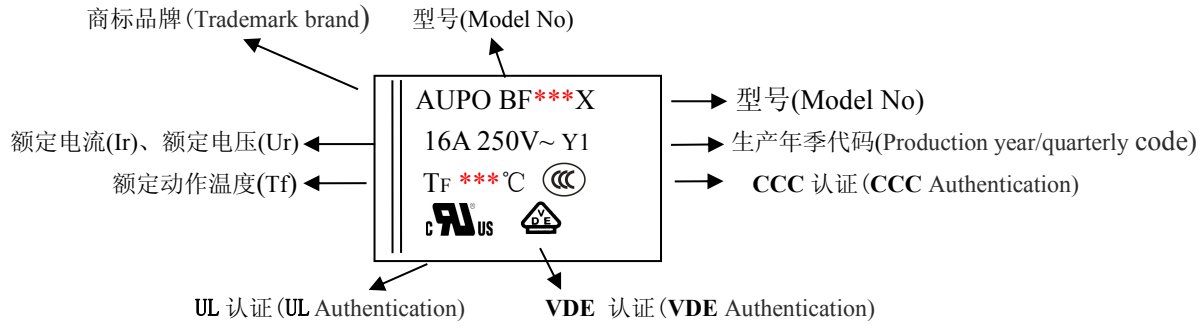
9．环保（Environmental）

(1) 符合 RoHS 环保指令.
Comply with the RoHS environmental directives.

(2) 符合 SONY SS-00259.
Comply with SONY SS - 00259.

(3) 符合 REACH 法规中 SVHC (高关注物质)物质含量的要求.
Comply with REACH regulation SVHC (high attention substance) material content requirement.

10．印刷标志（Printing marks）



注：（Note）

年的代表方式 Production year code	Y、Z、C、D、E……（除 A、B、P、S、T 外，按照英文字母顺排） Except for A, B, P, S, T, according to the English letters in series
	11、12、13、14、15…….(Y 代表 2011 年顺序排列对应) Corresponding based on “Y” representative for 2011 year in series
季度的代表方式 Quarterly code	1、2、3、4 代表一年的四季 （1、2、3、4 represents a year of four seasons in series）

如： “Y”、“Z”代表 11 年、12 年。“Y1”、“Y2” 代表 11 年第一、第二季度；

For example：“Y”、“Z” Representative for 11 ,12 years.

“Y1”、“Y2” Representative 11 years first and second quarter ；

11．包装（packaging）

每 100 只产品为一个小包装单位，每 10 小包产品为一个大包装单位。

A small package includes 100Pcs. A big package includes 10 small packages. (10×100pcs)

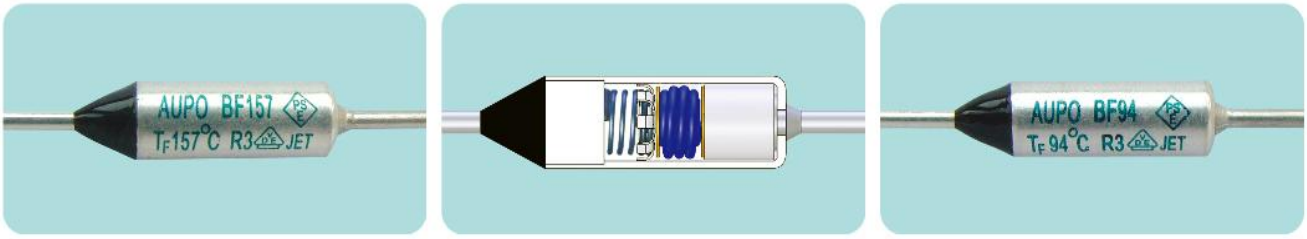
12. 运输和储存（Transport and Storage)

温度保险丝运输和储存过程中，注意要避免保险丝的本体温度超过其保持温度，对于 Tf<90℃的产品（Tf73、Tf77、Tf84），在夏季运输时需特别注意。

During the transportation and storage of the thermal fuse, should be careful to avoid fuse body temperature exceeding its Th. For products with Tf<90℃（Tf73、Tf77、Tf84), special care should be taken during summer transportation.

13. 安装使用注意事项（application instruction）

AUPO 有机物型温度保险丝安装使用注意事项
Pellet Type Thermal Application Instruction



- 在你设计应用或安装有机物感温型温度保险丝之前请阅读本说明。本说明的目的是为了降低由于应用中不正确的设计、安装方法及危害的工作环境而导致引起的温度保险丝工作不正常的危险。

温度保险丝在安装使用时应注意以下几点：

- 每一温度保险丝都有其额定的电气及温度参数，应用中应使其工作在规定的额定参数范围内。这些参数包括 Tf(额定动作温度)，Th 或称 Tc(保持温度)，Tm(极限温度) 及额定电流、电压，详情参见《有机物型温度保险丝规格参数表》上每一型号的参数。
- 安装设计时应注意使温度保险丝的长期连续工作环境温度不要超过它们的保持温度。
- 温度保险丝本体的温度会因通电而引起自己发热从而比环境温度高。根据安装方法和状态，上升温度可能会更高，在设计时建议用一个内装有热电偶温度保险丝的模型来选择确定适当的额定温度规格及安装位置。
- 温度保险丝是一不可复位的装置，为安全起见，在更换温度保险丝时请选用同一型号的温度保险丝，安装在同一位置上。
- 在设计应用产品时注意让温度保险丝只感受要求的热源，例如：在使用于加热器的状况中，温度保险丝不能直接与电热丝连接，必须通过一不发热的导线与电热丝隔离，以使电热丝的热不至于通过引脚传入温度保险丝导致加速它的动作。由于安装部位和热容量的不同，温度熔断器应安装在机器容易故障，异常发热最敏感的位置。由于有机物感温型温度保险丝热容量较大，要加大温度保险丝对温度的敏感性，需要使温度保险丝与热源较大面积接触，如用于线圈绕组上时，若有可能应将温度保险丝埋入线圈绕组里，加快热传导提高温度保险丝的敏感度。
- 当设计应用产品时，如果温度保险丝两引脚所处的温度不同，亦即是壳体两端存在温差，则应将树脂封口端的引脚与热源连接，以提高温度保险丝的使用寿命。
- 当设计应用产品时，必须考虑那些与引脚、壳体接触的元件材料的收缩、膨胀及其它移动引起的应力，应使用柔软、可弯曲的或冷、低电阻的引线来与温度保险丝连接。
- 不要将温度保险丝安装于有剧烈震动的场合。

- Please study these instructions before designing or installing AUPO Thermal Cutoffs (thermal-links).These instructions are provided to reduce the risk of malfunction of thermal cutoffs which may result from improper design, installation methods and harmful operating conditions which may occur during use in the end-product.

Thermal fuse in the installation should note the following:

- Each thermal cutoff (TCO) has specific Electrical and Temperature Rating and must be used within the prescribed ratings. These ratings include Tf(Rated Functioning Temperature),Th (Holding Temperature), Tm (Maximum Temperature Limit) ,and the electrical ratings .Please refer to the Aupo thermal cutoffs catalogue for specific ratings and further explanation of these terms.
- Install thermal cutoffs so that their temperature do not continuously exceed the Holding Temperature specified in the individual specification.
- The temperature of TCO becomes higher as current passes through it, the temperature may rise even higher depending on mounting method and condition. It is recommended that using the dummy thermal cutoff having an internal thermocouple to select the proper temperature rating and location of the thermal cutoff.
- For reason of safety that a TCO is a non-repairable item and that, in case of replacement ,an equivalent TCO with the same catalogue number shall be used mounted in exactly the same way.
- The end product should be designed so that theTCO detects only the intended heat source. For example, in a heater application, the thermal cutoff should never be directly connected to the heater wire and should be isolate to the heater wire by a "cold pin" so that conductance through the lead wire dose not accelerate the fusing off of the TCO.
- If there is a temperature difference between two leadwires in certain application, please connect the isilated(epoxy)lead, rather then the case lead, to the heat source, to prevent the thermal cutoff life to be reduced.
- Stress due to expansion and contraction of parts attached to the leads or body, vibration or other movements of parts should be considered when designing the end product. A flexible or bent heater lead or a cold, low resistance heater lead should be used to connect to the TCO. To improve thermal response of a TCO, put the body of the TCO to the heat source as close as possible.
- Do not locate the TCO on an assembly subjected to severe continuous vibration.

◉ 应用产品必须经过测试以确定当出现任何异常状况时，都不会使温度保险丝周围温度超过其极限温度 (Tm)，这种状况可能出现在一种称为“余热过冲”的状况下。例如：一个热风机在进风口或出风口堵塞时引起温度升高到 Tf，这时温度保险丝断开电路，但是，一个不正确的设计可能会引起装置提前开路和过度的余热过冲可能会损伤保险丝，应用产品须经过测试以确定在正常的温度波动状态（如控温器的动作与复位引起的加热器温度波动）下，温度保险丝周围温度在控温器的通断循环中不会达到 Tm。（见图 1）

◉ 接点电阻必须控制以确保使电阻最低，不适当的连接会导致保险丝提前动作，接点必须抽样检验以确保连接处有合适的机械强度，不适当的连接点会导致接点电阻增大进而在接点产生高温，引起损伤封口树脂及其它部件，这可能使装置产生非正常开路或其它故障。

◉ 连接方法

A. 压接——引出线和各种形状的压接端子直接压接，或者把引出线和辅助连接线压接端子压接，此二种方法都可以，但是压接部位不能有松动，要完全压紧，以免因为压接松动而引起接触电阻增大发热。压接端子以铜制为宜，特别是用于大电流。建议尽可能用压接的方式与线路连接，以减少焊或浸锡时高温对温保可能造成的伤害，压接时压接部位应距温保本体 10mm 以上。压接时尽可能避免大震动加在保险丝上，以避免由此可能产生对温度保险丝的伤害。

B. 若温保要用焊锡或浸锡方式与线路连接时，焊锡或浸锡处最好距温保本体 10mm 以上，在 300℃状况下焊锡或浸锡时间应控制在 1 ~ 2 秒内为宜，若使用低于 113℃的保险丝尽可能不要采用焊锡或浸锡方式。无论是烙铁焊、电焊还是浸锡，都应尽量在短时间内完成，并且要一边焊接一边散热，防止由于受热而发生早断、开路。（见图 2）

C. 用螺丝或铆钉固定温保时，一是固定点应距温保本体 10mm 以上，另一点应注意在锁螺丝或铆钉时不要拉扯引脚，以防拉力过大将引脚拉伤或从温保上拉裂而影响到温保的正常使用。

◉ The end product should be tested to ensure that potentially abnormal conditions do not exposed the TCO to the temperature exceeding its Tm. This condition may occur in an "overshoot" situation. For example, an air heater may be subjected to a blocked inlet or outlet condition on attaining its Tf, the TCO will open. However, an incorrect design may cause the premature opening of the device and excess overshoot may cause shooting or damage to the TCO. The end product should be tested to ensure that under normal cycling condition (such as heater cycling of a thermostat), the TCO never reaches its Tf during the "on" or "off' cycle. (see Fig. 1)

◉ Resistance of connections should be monitored to ensure minimal resistance. Improper connections or secure may result in premature failure of the TCO. Samples of joints should be inspected to ensure adequate mechanical bonding of lead to connection wires. Improper connections can cause damage to the seal or other parts which may result in shorting or nuisance tripping of the devices due to the generation of excessive heat at a faulty high resistance junction.

◉ Connection method

A. Splices——The TCO can be connected by splicing with lead wires, resistance of connection should be monitored to ensure minimal resistance, improper connections may cause damage to the seal or other parts which may result in shorting or nuisance tripping of the devices due to the generation of excessive heat at a faulty high resistance junction. It is generally better to use splice connection rather than soldering connection, especially in a high current application. When splicing, avoid apply excessive vibration and mechanical stress on the thermal cutoff, and splicing location should be more than 10mm from the body of the TCO.

B. If soldering connection is necessary, TCO leads should be heat sink, soldering point should be at least 10mm away from the body of TCO and soldering time should be controlled within 1–2 seconds. It is recommended not to used soldering connection if the rating of TCO is less then Tf 113 ~C, to avoid damage to the TCO. (see Fig. 2)

C. If TCO leads are fixed by screw or rivet, location should be at least 10mm from the body of TCO, take care not to give tension to the TCO.



图 1 Fig.1

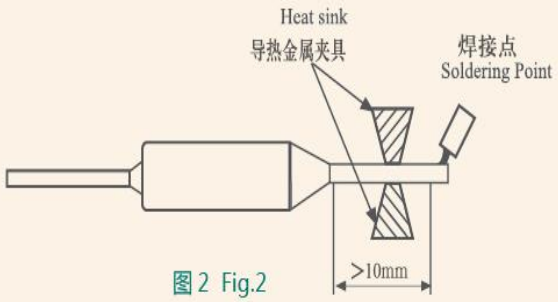


图 2 Fig.2

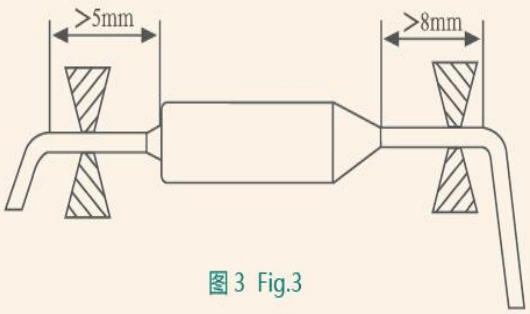


图 3 Fig.3

- 施加在引脚上的轴向力（拉力或推力），不可超过国际标准 IEC60691 规定的试验“拉力”或“推力”，对 BF 系列保险丝，最大试验拉力为 15.6N，最大试验推力为 3.9N，必须先做样品试验以确定在生产工序中不会产生超过最大试验“拉力”及“推力”在引脚上。固定温度保险丝时不要施加过大的压力于壳体、封口树脂或引脚上（如拉引保险丝，夹持过度或捆扎过紧），这样会引起损坏保险丝或引起应力集中在引脚上。
- 环氧树脂封装端的引出线若需折弯使用，请在距离环氧树脂部位 8mm 以外进行，以免损坏绝缘子，另一端的引出线的折弯，在距离外壳 5mm 以外进行。折弯时，请一边固定引出线（环氧树脂部位不施加力）一边折弯。（见图 3）
- 不可扭转温度保险丝（例如：引脚相对壳体旋转）。
- 引脚在安装时不可被损伤、打缺口、锐利角度弯曲、烧灼。
- 封口树脂及外壳不可被损伤、烧灼或过热。
- 有机物型温度保险丝外壳为带电一极，安装时注意勿使保险丝外壳与其它安装金属部件接触。
- 进货须做检验，看是否在运输过程中产生损坏，建议在安装后再次做检验，建议在安装前后进行导电测量（即距产品本体 10mm 处测量产品内阻应在 2mΩ以内）或 X 射线检验。
- 原型试样或生产初期抽样及实验装配试验品必须做试验，在正常工作及异常状态下测量产品里的温度保险丝及关键部位的温度，在试验后须检查温度保险丝及产品。
- 避免在水、有机溶液等液体或结露的条件下使用，另外不要在二氧化硫、氢氧化物等腐蚀性气体的环境中使用。
- BF 系列温度保险丝的本体与 A 引脚进行镀银处理，所以会因硫化等引起变色。这时，表面的标志将难于识别，焊接压接特性也将恶化。因此在保存时请勿放置在纸箱、皮箱等易产生含硫磺气体的物质附近。要装在纸箱中保存时，应对保险丝进行双重包装不漏气。

- Axial stress (pull or push) on the leads must never exceed the maximum tested "pull" or "push" force. For BF series thermal cutoffs, maximum tested "pull" force is 15.6N, and maximum tested "push" force is 3.9N, at room temperature. Experimental assembly trials should be made to verify that manufacture procedures will not exceed the maximum tested "pull" and "push" force on the leads. Securement of the TCO after making connections should not put excessive pressure on the TCO body, seal or leads (i.e. pushing the TCO, excessive clamping or too tight of a wrap) which could result in denting of the thermal cutoff or place pushing or pulling stress on the leads.
- When bending leads, secure the leadwire near the body of TCO, at least 8mm should be maintained between epoxy seals and lead bents and at least 5mm for the lead on the other side. (see Fig.3)
- Do not twist the thermal cutoff, (i.e. rotation of lead with respect to the body).
- Leads should not be cut, nicked, folded sharply, fractured or burned during forming or installation.
- The seal or body must not be damaged, burned or over heated.
- The case of pellet type thermal cutoff is electrically connected to one of two poles so do not make it contact with other metal part when install the thermal cutoff in the end product.
- Incoming shipments should be examined for evidence of damage during transportation.It is recommended that further examination be made afte, r installation in the end product, resistance measurements (resistance should be less then 2m f), measure between leadwires 10mm from the case) or X-raying before and after installation are recommended.
- Prototype or early production samples and also experimental assembly trials should be operated under normal and abnormal condition with temperature measured on the TCO and on critical parts of the appliance or other end product. After the test the TCO and appliance should be examined.
- Do not use the TCO in water, organic solvents, other liquids, condensed water, or environments containing sulfurous acid gas, nitrous acid gas.
- The case and lead A of pellet type TCO are silver-plated, therefore, the color of these parts may become black because of sulfuration, that cause difficult to discriminate the marking or decline the solderability. To avoid this, the TCO should not keep around materials which which generate sulfurous acid gas (such as cardboard or rubber, etc.). When the TCO have to be storaged in a cardboard box, the TCO should be sealed into other bags (such as polyethylene).