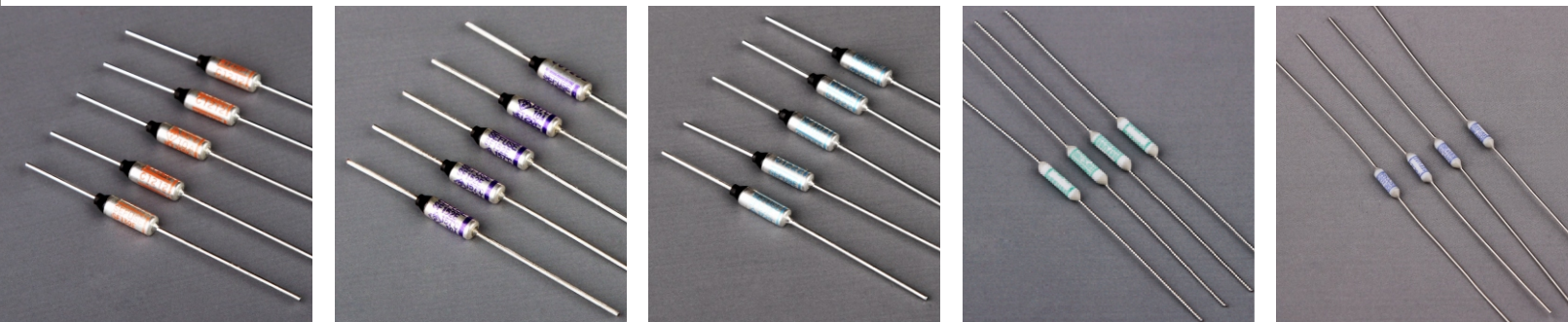


NEC保险丝系列

SEFUSE™



SEFUSE™

温度过热保险丝



- The NEC SCHOTT SEFUSE™ SF type is a thermal cutoff based on a one-shot operation principle and prevents electrical appliances from catching fire due to overheating. It uses an organic thermo-sensitive material inside a metal case and is able to operate in electric circuits with large currents.
- The SF type contains a sliding contact, two springs and a thermal pellet inside a metal case. Under normal temperatures, the sliding contact touches the top of the lead. The current flows through the sliding contact and the metal case to the other lead and the electrical circuit is closed. When the ambient temperature reaches a critical point, the thermal pellet melts and the springs move the sliding contact away, resulting in an interruption of the electrical flow.

- The SF type thermal cutoff has the following advantages:
- Remarkable sensitivity to temperature rise due to its shape and small size
- High reliability and accuracy due to resin-seal
- Appropriate for electric flows with large currents (6A-15A)
- Environmentally-friendly product complying with the Directive on Waste Electrical and Electronic Equipment Directive (WEEE), and the Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)

- It is used for a great variety of applications such as:
- Home Appliances (e.g. irons, coffee makers, rice cookers, bread makers, toasters, refrigerators)
- Comfort Conditioning Appliances (e.g. air conditioners, fans, humidifiers, heaters)
- Personal Care Appliances (e.g. hair dryers, hair curlers, hair setters, razors)
- Business Appliances (copiers, laser printers, facsimiles, power strips)
- Electrical Components (e.g. transformers, solenoids, AC adopters)

- SEFUSE™ S型是一种基于一次性动作原理的温度保险丝，可防止电器因过热而着火。其金属壳内部采用有机热敏材料，可在大电流电路中进行操作。
- SF 型温度保险丝的金属壳内部包含一个可动电极、两根弹簧和一个热敏颗粒。正常温度下，可动电极会接触到引线顶部。电流会流经可动电极，然后通过金属外壳，到达另一条引线，形成一个闭合电路。当环境温度到达一个临界点时，随着热敏颗粒的熔化，弹簧将脱离滑动触点，从而切断电流
- 因其独特小巧的外形设计，该产品对温升具有极高的灵敏度
- 采用树脂封装，该产品具有高度的可靠性和精确度
- 适应于大电流 (6A-15A) 电路
- 是一种环境友好型产品，符合"欧盟电气电子设备废弃物指令 (WEEE)"和"电气、电子设备中限制使用某些有害物质指令 (RoHS)"标准

- 家用电器（如熨斗、咖啡机、电饭煲、面包机、多士炉、冰箱）
- 生活类电器（如空调、风扇、加湿器、电暖器）
- 个人护理电器（如吹风机、卷发器、整发器、剃须刀）
- 商用电器（复印机、激光打印机、传真机、电源排插）
- 电气元件（如变压器、电磁阀、交流电源适配器）

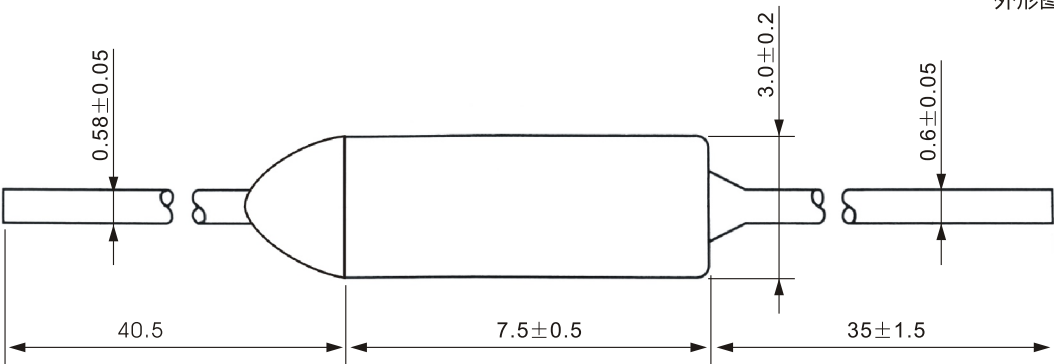
4) The electrical ratings according to the various safety standards are shown in the following table.
注4) 各安全规格的认定定格如下表所示

| 额定电压 Rated Voltage | UL | CSA | VDE | BEAB | CCC | 电气用品安全法 PSE |
|-----------------------|------------------------------------|----------------------|-----|------|-----|----------------|
| AC120V | 15A (电感电路) (阻抗电路) 20A(阻抗电路) | | | | | |
| AC240V | 15A(阻抗电路) | | | | | |
| AC250V | 10A(阻抗电路) | 15A (电感电路) (阻抗电路) | 10A | 10A | 10A | 10A |
| | 15A(阻抗电路) | | 15A | 15A | 15A | |
| | 17A(阻抗电路) | | | | | |
| AC227V | 15A(阻抗电路) | | | | | |

5) The following SF-typys have passed the Conductive Heat Aging Test(CH)specified UL safety standard:SF169E,SF184E,SF188E,SF214E,SF226E and SF240E.
注5) SF169E、SF184E、SF214E、SF226E、SF240E等6个品种已获得UL规格的CH额定 (Conductive Heat Aging Test) 的认可。

SF/K系列 SF/K Series

外形图 (单位 : mm)



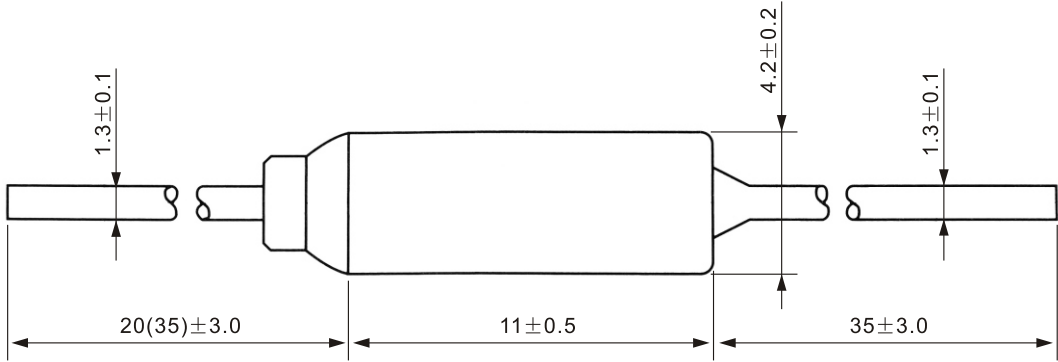
详细参数

| 注1) 符合 WEEE (ROHS) | 名称 Part Number | 额定动作温 度TF-Tf Rated Functioning Temperature (°C) | 动作精度 Operating Temperature (°C) | TH Th (°C) | TM Tm (°C) | 额定电流 Rated Current | 额定电压 Rated Voltage | UL | VDE | BEAB | 电气用品安全法 PSE 7) |
|------------------------------|----------------------|--|--|-----------------|-----------------|--------------------------|--------------------------|--------|--------------------------|-------|-------------------|
| ○ | SF 70K | 73 | 70±2 | 45 | 150 | 注2) 6A (阻抗电路) | AC250V | E71747 | 677802 -1171 -0006 | C1180 | 1008 |
| ○ | SF 76K | 77 | 76± ₄ ⁰ | 51 | | | | | | | |
| ○ | SF 91K | 94 | 91± ₁ ³ | 66 | | | | | | | 1010 |
| ○ | SF 96K | 99 | 96±2 | 71 | | | | | | | 1012 |
| ○ | SF119K | 121 | 119±2 | 94 | | | | | | | 1015 |
| ○ | SF188K | 192 | 188± ₁ ³ | 164 | 300 | | | 注3) | | | 1016 |
| ○ | SF214K | 216 | 214± ₃ ¹ | 198 | | | | | | | |

1) No use of hazardous substances prescribed by WEEE and RoHS.
2) The following electrical ratings were used for the UL,VDE and KTL safety standards:10A(Resistive)/AC 250V.
3) The following SF-types have passed the Conductive Heat Aging Test(CH)specified by the UL safety standard:SF188K and SF214K.
注1) ○ : 未使用由WEEE (RoHS) 规定的有害物质
注2) 在UL及VDE规格方面获得如下认证。10A (阻抗电路) /AC250V
注3) 获有UL规格的CH额定 (Conductive Heat Aging Test) 。

SF/Y系列 SF/Y Series

外形图 (单位 : mm)



详细参数

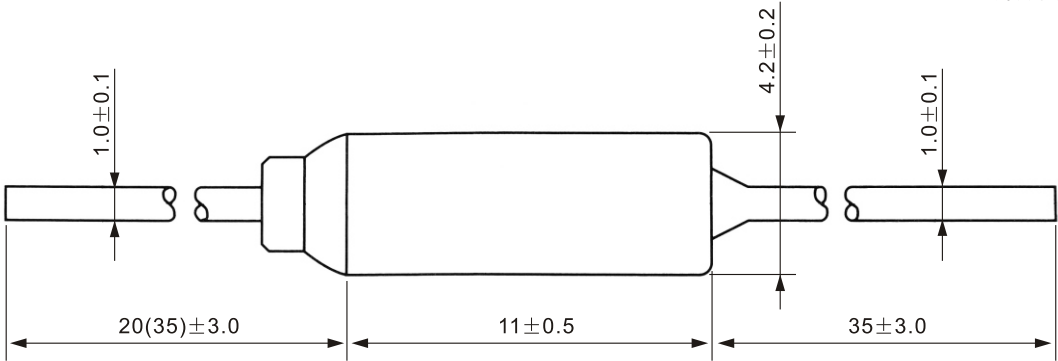
| 注1) 符合 WEEE (ROHS) | 注2) 名称 Part Number | 额定动作温 度TF-Tf Rated Functioning Temperature (℃) | 动作精度 Operating Temperature (℃) | 额定电流 Rated Current | 额定电压 Rated Voltage | UL | CCC | 电气用品安全法 PSE | | | | | | | | | | | |
|-----------------------------|-----------------------------|---|---|--------------------------|--------------------------|--------|-----|----------------|------|------|------|------|------|--|------|--|--|--|--|
| ○ | SF 70Y | 73 | 70±2 | 15A | AC250V | | ※1 | 1008 | | | | | | | | | | | |
| ○ | SF 76Y | 77 | 76± ⁰ ₄ | | | | | 1010 | | | | | | | | | | | |
| ○ | SF 91Y | 94 | 91± ³ ₁ | | | | | | 1011 | | | | | | | | | | |
| ○ | SF 96Y | 99 | 96±2 | | | | | | | 1012 | | | | | | | | | |
| ○ | SF113Y | 113 | 110±2 | | | E71747 | | | | | 1013 | | | | | | | | |
| ○ | SF119Y | 121 | 119±2 | | | | | | | | | 1014 | | | | | | | |
| ○ | SF129Y | 133 | 129±2 | | | E71747 | | | | | | | 1015 | | | | | | |
| ○ | SF139Y | 142 | 139±2 | | | | | | | | | | | | 1016 | | | | |
| ○ | SF152Y | 157 | 152±2 | | | 1017 | | | | | | | | | | | | | |
| ○ | SF169Y | 172 | 169± ³ ₁ | | | | | | | | | | | | | | | | |
| ○ | SF184Y | 184 | 182±2 | | | | | | | | | | | | | | | | |
| ○ | SF188Y | 192 | 188± ³ ₁ | | | | | | | | | | | | | | | | |
| ○ | SF214Y | 216 | 214± ¹ ₃ | | | | | | | | | | | | | | | | |
| ○ | SF226Y | 227 | 226± ¹ ₃ | | | | | | | | | | | | | | | | |
| ○ | SF240Y | 240 | 237±2 | | | | | | | | | | | | | | | | |

1) No use of hazardous substances prescribed by WEEE and RoHS.
2) Part number indicates thermal cutoffs with standard lead lengths. For long lead length types, add the suffix "-1" at the end of the part number.
注1) ○ : 未使用由WEEE (RoHS) 规定的有害物质
注2) 在需要长引线产品时请在名称的末尾加上 "-1"

※1:2004010205122568

SFH/E系列 SFH/E Series

外形图（单位：mm）



详细参数

| 注1) 符合 WEEE (ROHS) | 注2) 名称 Part Number | 额定动作温 度TF-Tf Rated Functioning Temperature (°C) | 动作精度 Operating Temperature (°C) | TH Th (°C) | Maximum Temperature Limit Tm (°C) | 额定电流 Rated Current | 额定电压 Rated Voltage | UL | | VDE | | BEAB | | CCC | | KTL | | 电气用品安全法 PSE | | | |
|-----------------------------|-----------------------------|--|--|------------------|---|--------------------------|--------------------------|--------|----|--------------------------|-------|------|----|------|------|---------------------------|----------------------------|---|---|---|--|
| | | | | | | | | 日本 | 泰国 | 日本 | 泰国 | 日本 | 泰国 | 日本 | 泰国 | JPN (SU0519 -XXXXX) | Thai (SU0520 -XXXXX) | 日本厂 JET 1975- 32001 XXXX Rating 15A | JPN JET 1974- 32001 XXXX Rating 10A | 泰国厂 JET 1974- 32001 XXXX Rating 15A | Thai JET 1974- 32001 XXXX Rating 10A |
| ○ | SFH106E | 110 | 106± ³ / ₂ | 99 | 380 | 15A/10A (Resistive) | AC250V | E71747 | 4) | 677902 -1171 -0009 | C1185 | ※1 | ※2 | 5007 | 5006 | 5008 | 5007 | 2003 | 1011 | 2003 | 1001 |
| ○ | SFH109E | 113 | 109± ³ / ₂ | 102 | | | | | | | | | | | | | | | | | |
| ○ | SFH113E | 117 | 113± ³ / ₂ | 106 | | | | | | | | | | | | | | | | | |
| ○ | SFH117E | 121 | 117± ³ / ₂ | 110 | | | | | | | | | | | | | | | | | |
| ○ | SFH124E | 128 | 124± ³ / ₂ | 117 | | | | | | | | | | | | | | | | | |
| ○ | SFH129E | 134 | 129± ³ / ₂ | 122 | | | | | | | | | | | | | | | | | |
| ○ | SFH134E | 139 | 134± ³ / ₂ | 127 | | | | | | | | | | | | | | | | | |
| ○ | SFH152E | 157 | 152± ³ / ₂ | 145 | | | | | | | | | | | | | | 2004 | 1012 | 2004 | 1004 |
| ○ | SFH162E | 167 | 162± ³ / ₂ | 155 | | | | | | | | | | | | | | | | | |
| ○ | SFH172E | 176 | 172±3 | 165 | | | | | | | | | | | | | | 2005 | 1013 | 2005 | 1005 |
| | | | | | | | | | | | | | | | | | | 2006 | 1014 | 2006 | 1006 |

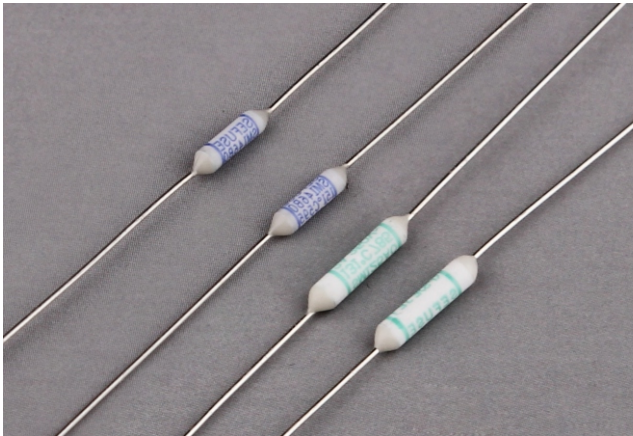
1) No use of hazardous substances prescribed by WEEE and RoHS.
2) Part number indicates thermal cutoffs with standard lead lengths.For long lead length types,add the suffix "-1"at the end of the part number.
3) The electrical ratings according to the various safety standards are shown in the following table.

注1) ○：未使用由WEEE（RoHS）规定的有害物质
注2) 在需要长引线产品时请在名称的末尾加上“-1”
注3) 各安全规格的认定定格如下表所示

※1:2006010205173643(10A)
2006010205173642(15A)
※2:2006010205173644(10A)
2006010205173645(15A)

| 额定电压 Rated Voltage | UL | VDE | BEAB | CCC | KTL | 电气用品安全法 PSE |
|-----------------------|-----------|-----|------|-----|-----|----------------|
| AC120V | 20A(阻抗电路) | | | | | |
| AC250V | 10A(阻抗电路) | 10A | 10A | 10A | 10A | 10A |
| | 15A(阻抗电路) | 15A | 15A | 15A | 15A | 15A |
| | 17A(阻抗电路) | | | | | |

4) The following SF-types have passed the Conductive Heat Aging Test(CH)specified by the UL safety standard:SFH172E.
注4) SFH172E已获得UL规格的CH额定（Conductive Heat Aging Test）的认可。



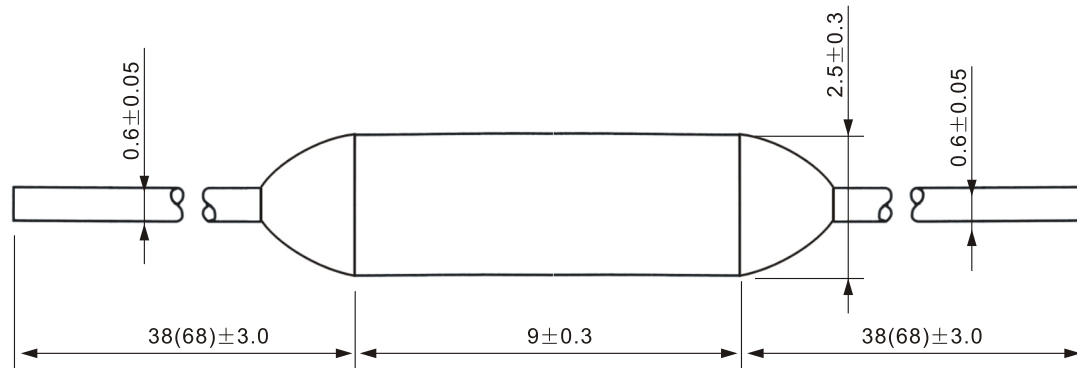
SEFUSE™
温度过热保险丝

- The NEC SCHOTT SEFUSE™ SM type is a thermal cutoff designed to protect electrical home appliances and industrial electrical equipment from catching fire. It contains a fusible alloy inside an insulated case which interrupts the electrical circuit by melting when ambient temperatures reaches abnormal levels. Product Description
- The device is integrated into the electrical circuit of the appliance. Two leads are connected in the device by a fusible alloy, which is coated with a special flux. Under normal conditions, the current flows directly from one lead to the other through the fusible alloy. In case the ambient temperature should reach a critical point, the fusible alloy will melt and then condense into a drop around the end of each lead caused by surface tension and the special coating. As a result, the electric current is interrupted Immediately.
- Are stable and operate with precision to ensure maximum safety for the operation of electrical equipment
- Can be mounted directly where temperature detection is required without insulation
- Have fast thermal response due to their shape and small size
- Have a resin-seal which ensures strong reliability and accuracy
- The SM type is used in many different electrical products, such as in power supplies, motors, battery packs and automobiles.

- SEFUSE™ SM 型是一款专为防止家用电器和工业电气设备着火而设计的温度保险丝。其绝缘外壳内含有合金制成的可熔体，会在环境温度达到异常时熔化以切断电路。
- 该装置会被集成至电器的电路中。装置中两根引线通过涂有特殊助熔剂的合金制成的可熔体连接。在正常条件下，电流会直接从一根引线流经合金制成的可熔体到达另一根引线。当环境温度到达临界点时，合金制成的可熔体会熔化，并且在表面张力和特殊涂层的作用下，熔化的合金会在两根引线的末端凝结成球，从而切断电流。
- 操作稳定、精确，可极端地确保电气设备操作的安全
- 可直接在需要温度检感的地方进行安装，无需绝缘
- 因其独特小巧的外形设计，产品具有快速的热反应能力
- 采用树脂封装，可确保极高的可靠性和精确性
- SM 型温度保险丝可用于多种不同的电气产品，如电源、马达、电池组和汽车。

SM/A系列 SM/A Series

外形图 (单位: mm)



详细参数

| 注1) 符合 WEEE (ROHS) | 注2) 名称 Part Number | 额定动作温 度TF-Tf Rated Functioning Temperature (°C) | 动作精度 Operating Temperature (°C) | T _H T _H (°C) | T _M T _M (°C) | 电气额定 | | UL | CSA | | | VDE | | | BEAB | | | CCC | | | 电气用品安全法 PSE | | | | | | | | | | | |
|------------------------------|------------------------------|--|--|--|--|------------------------|-------------------------------|--------|-----------------------|--------------|-----------|--------------------------|--------------|-----------|-----------|--------------|-----------|-----------|-----------------------|-----------|-----------------------------------|------------------------------------|------|-------|------|----|------|------|------|------|------|------|
| | | | | | | 交流 | 注3) 直流 | | 日本 JPN | Thai Thai | 泰国 THA | 日本 JPN | Thai Thai | 泰国 THA | 日本 JPN | Thai Thai | 泰国 THA | 日本 JPN | Thai Thai | 泰国 THA | 日本厂JPN JET 1975- 32001 XXXX | 泰国厂Thai JET 1974- 32001 XXXX | | | | | | | | | | |
| ○ | SM072A0 | 76 | 72± $\frac{3}{2}$ | 46 | 100 | 2A (阻抗电路) AC250V | 3A/DC50V(UL) 4A/DC50V(VDE) | E71747 | 注4) | | | 677802 -1171 -0002 | C1137 | ※1 | ※2 | 1007 | 1017 | | | | | | | | | | | | | | | |
| ○ | SM082A0 | 87 | 82± $\frac{3}{2}$ | 52 | 7A DC50V | | 4A DC50V | | 172780 (LR52330) | C1191 | ※1 | | | | | ※2 | 1004 | 1016 | | | | | | | | | | | | | | |
| ○ | SM092A0 | 97 | 92± $\frac{3}{2}$ | 62 | | | | | | | | | | | | | 200 | 注4) | 172780 (LR52330) | C1191 | ※1 | ※2 | 1001 | 1010 | | | | | | | | |
| | SM095A0 | 100 | 95± $\frac{5}{0}$ | 65 | | | | | | | | | | | | | | | | | | | 115 | 1006 | 1011 | | | | | | | |
| ○ | SM110A0 | 115 | 110±2 | 80 | | | | | | | | | | | | | | | | | | | 125 | 1002 | 1012 | | | | | | | |
| ○ | SM125A0 | 131 | 126± $\frac{3}{2}$ | 96 | | | | | | | | | | | | | | | | | | | 200 | C1191 | ※1 | ※2 | 1003 | 1013 | | | | |
| | SM126A0 | 131 | 126±2 | 96 | | | | | | | | | | | | | | | | | | | 140 | | | | | | 1005 | 1014 | | |
| | SM130A0 | 135 | 130±2 | 100 | | | | | | | | | | | | | | | | | | | 145 | | | | | | | | 1018 | 1015 |
| | SM134A0 | 139 | 134±2 | 104 | | | | | | | | | | | | | | | | | | | 200 | | | | | | | | | |
| ○ | SM137A0 | 142 | 137± $\frac{3}{2}$ | 107 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ○ | SM146A0 | 151 | 146± $\frac{3}{2}$ | 116 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ○ | SM150A0 | 150 | 146± $\frac{3}{2}$ | 116 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | SM164A0 | 169 | 164± $\frac{3}{2}$ | 133 | | 180 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | SM182A0 | 187 | 182±2 | 152 | 195 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

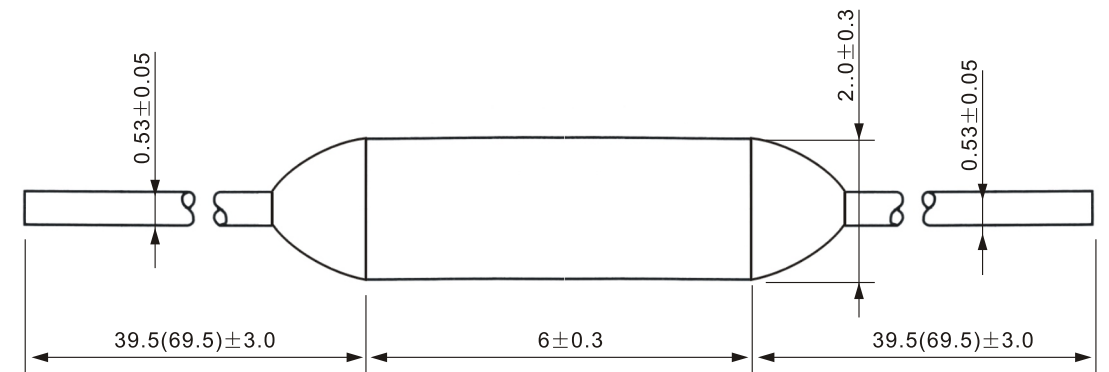
1) No use of hazardous substances prescribed by WEEE and RoHS.
2) Part number indicates thermal cutoffs with standard lead lengths. For long lead length types, add the suffix "-1" at the end of the part number.
3) DC ratings are approved by UL and VDE.
4) SM072A0, SM134A0 has c-UL recognition.

注1) ○：未使用由WEEE (RoHS) 规定的有害物质
注2) 在需要长引线产品时请在名称的末尾加上的“0”改为“1”。
注3) 已获得UL, VDE规格
注4) SM072A0, SM134A0也认可c-UL。

※1:2002010205002641
※2:2002010205023067

SM/B系列 SM/B Series

外形图 (单位: mm)



详细参数

[illegible]

1) No use of hazardous substances prescribed by WEEE and RoHS.
2) Part number indicates thermal cutoffs with standard lead lengths. For long lead length types, add the suffix “-1” at the end of the part number.
3) DC ratings are approved by UL and VDE.
4) SM134B 0 has c-UL recognition.

注1) ○：未使用由WEEE（RoHS）规定的有害物质
注2）在需要长引线产品时请在名称的末尾加上的“0”改为“1”。
注3）已获得UL，VDE规格
注4）SM134B 0也认可c-UL。

※1:2002010205002645
※2:2002010205023066