

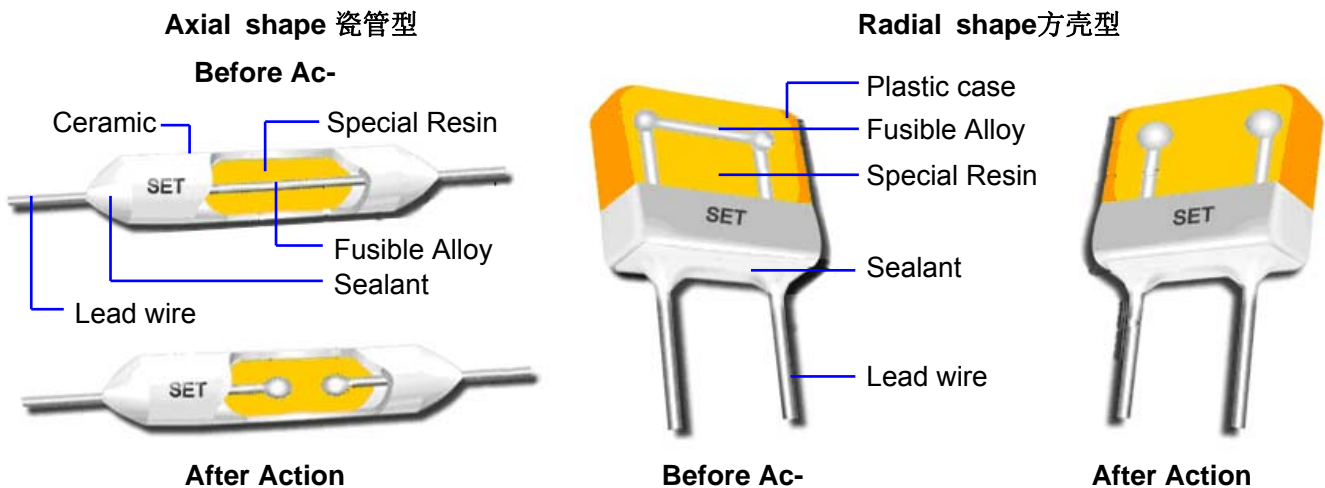


Principle of Thermal cutoff 温度保险丝原理

SET® Alloy thermal cutoffs, defined as non-resettable, are single action devices that are widely used for the electrical equipments against over temperature. The thermal cutoffs are composed of the fusible alloy with low melting point and special resin, encapsulated in a plastic or ceramic housing. Under normal operating, the fusible alloy is joined by the two lead wires within the housing. When the thermal cutoff senses an abnormal heat and reach a preset temperature, the fusible alloy melts and disconnects the circuit completely with the aid of the special resin. Both Axial and Radial shapes are available, with rated current from 1A to 100A, functioning temperature 76C~221C, certificated including UL, CUL, VDE,TUV,PSE, KTL, CCC and ROHS, REACH compliant.

赛尔特® 合金型温度保险丝是一次性不可复位的熔断装置，广泛应用于电器设备的过温保护。温度保险丝由具有低熔点的易熔合金和助熔断剂构成，封装在塑料或陶瓷的外壳内。在正常工作情况下，易熔合金与两根引脚保持连接。当温度保险丝感受到异常发热并达到预定的熔点温度时，易熔合金熔化，并在助熔断剂的作用力下快速彻底断开电路。有电阻型和方块型两种外形供选择，额定电流1A~100A，动作温度76C~221C，安全认证包括UL，CUL，VDE，TUV，PSE，KTL，CCC和环保RoHS、REACH认证。

Construction of Thermal cutoff 温度保险丝结构



Key Features 关键特性









- High accuracy of cutoff temperature $\pm 2^{\circ}\text{C}$ 精确断开温度 $\pm 2^{\circ}\text{C}$
 - Rated current: 1A~100A /250V ac 额定电流 1A~100A /250V ac
 - Functioning temperature $76^{\circ}\text{C} \sim 221^{\circ}\text{C}$ 动作温度 $76^{\circ}\text{C} \sim 221^{\circ}\text{C}$
 - Resin-sealed construction 树脂密封结构
 - Low intrinsic resistance 低内阻
 - Compact size and small size 结构紧凑，尺寸小
- Withstand transient surge current up to 5kA~100kA(8/20 μ s) UL1449 3rd standard 承受大浪涌电流5KA~100KA (8/20us) , UL1449-3 标准



Terminology 术语

- **Thermal-link:** also known as thermal cutoff or thermal fuse, all are the same in this context, function one only, non-resettable.
热熔断体也称为热断路器或温度保险丝，在本文中这些不同名词都代表同样的产品，为一次性动作而不可复位的装置。
- **Rated functioning temperature (Tf):** -额定动作温度
The temperature of the Thermal-link which causes it to change its state of conductivity with a detection current up to 10mA as the only load. 通10mA的负载电流时，加热使温度保险丝断开的温度。
General tolerance 允许偏差 : +0, -10C (UL, VDE, CSA, IEC标准)
PSE tolerance PSE 允许偏差 : ±7C (only) (仅限PSE标准)
- **Fuse temperature (Fuse-temp):** 实测熔断温度
The temperature is measured with silicone oil bath of which temperature is increased at the rate of 0.5~1C/min, with a detection current up to 10mA as the only load.
置于油池中，通10mA以下的负载电流，每分钟升温0.5~1度，测断开温度。
- **Holding temperature (TH):** 保持温度
The Max. temperature at which a TCO will not change its state of conductivity when conducting rated current for 168H. 持续通额定电流168H不断开的最高温度。
- **Max. temperature limit (TM):** 极限温度
The Max. temperature at which the TCO can maintain its mechanical and electrical properties without being impaired for for 10 mins. 不破坏机械和电气特性所能承受的最高温度。
- **Rated current (Ir):** 额定电流
The current used to classify a Thermal-link, which is the Maximum current that thermal cutoffs allow to carry and are able to cutoff the circuit in safety. 温度保险丝分类用，允许用于电路并安全断开的最大电流。
- **Rated voltage (Ur):** 额定电压
The voltage used to classify a Thermal-link, which is the Maximum voltage that is allowed to apply to the circuit in which the thermal cutoff is used. 温度保险丝分类用，允许用于电路并安全断开的最高电压。
- **Transient overload current (Ip):** 瞬态过载电流

Safety Approval 安全认证

Agency	Country	standard	File NO.	Category
 UL	USA	UL60691	E214712	XCQM2
 CUL	Canada	UL60691	E214712	XCQM8
 TUV	Germany	EN60691	R50161772	
 VDE	Germany	IEC60691	40017055	
 PSE	Japan	J60691	PSE09020139/40/41/42/43/44	
 KTL	Korea	K60691	SU05023-6001/2/3	
 CCC	China	GB9816-2008	2009010205346083	
 ※ RoHS and REACH compliant				



Standard Ratings

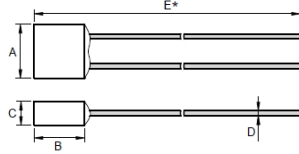
标准参数

Thermal cutoffs (TCO)

温度保险丝



● F series 1A



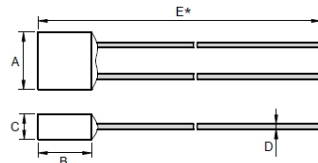
Dimensions (mm)

A	B	C	D	E*
5.2±0.5	4.1±0.5	2.3±0.2	0.50±0.05	60±5

Model NO. 型号	Tf (°C) 额定温度	Fuse-Temp (°C) 熔断温度	Th (°C) 保持温度	Tm (°C) 极限温度	Ir (A) 额定电流	Ur (V) 额定电压	UL	CUL	PSE	VDE	TUV	CCC	KTL	RoHS		
F0	76	73±2	53	200	1	250AC	●	●	●			●		▲		
F18	86	81±2	61				●	●	●			●				▲
F1	102	98±2	79				●	●	●	●	●	●	●	●	●	▲
F2	115	111±2	91				●	●	●	●	●	●	●	●	●	▲
F3	125	121±2	100				●	●	●	●	●	●	●	●	●	▲
F4	130	125±2	106				●	●	●	●	●	●	●	●	●	▲
F8	133	130±2	111				●	●	●	●				●	●	▲
F6	145	140±2	121				●	●	●							▲
F7	150	145±2	126				●	●	●	●	●	●	●	●	●	▲
F16	160	154±2	135								●			●		▲
F15	169	164±2	145				●	●	●					●		



● K series 2A



Dimensions (mm)

A	B	C	D	E*
5.8±0.5	5.8±0.5	2.3±0.2	0.54±0.05	70±5

Model NO. 型号	Tf (°C) 额定温度	Fuse-Temp (°C) 熔断温度	Th (°C) 保持温度	Tm (°C) 极限温度	Ir (A) 额定电流	Ur (V) 额定电压	UL	CUL	PSE	VDE	TUV	CCC	KTL	RoHS		
K0	76	73±2	53	200	2	250AC	●	●	●			●		▲		
K18	86	81±2	61			250AC	●	●	●	●				●	●	▲
						60DC	●	●								▲
K1	102	98±2	79			250AC	●	●	●	●	●	●	●	●	▲	
						60DC	●	●								▲
K2	115	111±2	91			250AC	●	●	●	●	●	●	●	●	▲	
						60DC	●	●								▲
K3	125	121±2	100			250AC	●	●	●	●	●	●	●	●	▲	
						60DC	●	●								▲
K4	130	125±2	106			●	●	●	●	●	●	●	●	●	▲	
K8	133	130±2	111			●	●	●	●				●	●	▲	
K5	135	130±2	111			●	●	●	●	●	●		●	●	▲	
K9	136	131±2	112			●	●	●	●	●	●		●	●	▲	
K6	145	140±2	121			●	●	●	●	●	●		●	●	▲	
K7	150	145±2	126			●	●	●	●	●	●	●	●	●	▲	
K16	160	154±2	135							●			●		▲	
K15	169	164±2	145			●	●	●					●			
K32	205	199±2	169			250	●	●				●	●		▲	
K31	221	218±2	188	250	●	●				●	●		▲			

Note: other temperatures can be customized, such as: 85°C, 90°C, 92°C, 95°C, 97°C, 100°C, 103°C, 108°C, 117°C, 120°C, 127°C, and etc. For more choices, welcome contact us for help. 注释: 其它温度可定制, 欢迎联系赛尔特电子有限公司。

*The length of leadwires can be customized as required. 为引脚长度可根据客户要求定制。



Standard Ratings

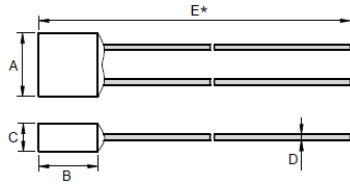
标准参数

Thermal cutoffs (TCO)

温度保险丝



● X series 3A



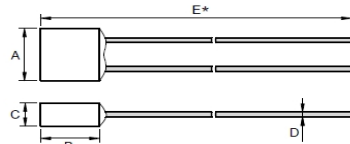
Dimensions (mm)

A	B	C	D	E*
5.8±0.5	5.8±0.5	2.3±0.2	0.54±0.05	70±5

Model NO. 型号	Tf (°C) 额定温度	Fuse-Temp (°C) 熔断温度	Th(°C) 保持温度	Tm (°C) 极限温度	Ir (A) 额定电流	Ur (V) 额定电压	UL	CUL	PSE	VDE	TUV	CCC	KTL	RoHS			
X0	76	73±2	53	200	3	250AC	●	●	●			●		▲			
X18	86	81±2	61			250AC	●	●	●	●			●	●		▲	
						60DC	●	●								▲	
X1	102	98±2	79			250AC	●	●	●	●			●	●		▲	
						60DC	●	●									▲
X2	115	111±2	91			250AC	●	●	●	●			●	●		▲	
						60DC	●	●									▲
X3	125	121±2	100			250AC	●	●	●				●			▲	
						60DC	●	●									▲
X4	130	125±2	106			250AC	●	●	●	●			●	●		▲	
X8	133	130±2	111				●	●	●	●			●	●		▲	
X5	135	130±2	111				●	●	●	●			●	●		▲	
X9	136	131±2	112				●	●	●	●			●	●		▲	
X6	145	140±2	121				●	●	●	●			●	●		▲	
X7	150	145±2	126				●	●	●	●			●	●		▲	
X16	160	154±2	135						●				●			▲	
X15	169	164±2	145						●	●	●		●				▲
X32	205	199±2	169				250	●	●				●	●	●		▲
X31	221	218±2	188	250	●		●				●	●	●		▲		



● Y series 5A



Dimensions (mm)

A	B	C	D	E*
6.6±0.5	7.0±0.5	2.7±0.3	0.80±0.05	70±5

Model NO. 型号	Tf (°C) 额定温度	Fuse-Temp (°C) 熔断温度	Th(°C) 保持温度	Tm (°C) 极限温度	Ir (A) 额定电流	Ur (V) 额定电压	*Imax 8/20us (1 Time) 最大浪涌	UL	CUL	PSE	VDE	CCC	KTL	RoHS			
Y0	76	73±2	53	200	5	AC250	5KA	●	●	●		●		▲			
Y18	86	81±2	61					●	●	●		●			●		▲
Y1	102	98±2	77				6KA	●	●	●			●	●		▲	
Y2	115	111±2	89					●	●	●	●	●	●	●	●		▲
Y3	125	121±2	98					●	●	●	●	●	●	●	●		▲
Y4	130	125±2	103					●	●	●	●	●	●	●	●		▲
Y8	133	130±2	108					●	●	●	●	●	●	●	●		▲
Y9	136	131±2	111					●	●	●	●	●	●	●	●		▲
Y6	145	140±2	118					●	●	●							▲
Y7	150	145±2	123					●	●	●	●	●	●	●	●		▲
Y16	160	154±2	133							●				●			▲
Y15	169	164±2	142							●	●	●		●			

Note: other temperatures can be customized, such as: 85°C, 90°C, 92°C, 95°C, 97°C, 100°C, 103°C, 108°C, 117°C, 120°C, 127°C, and etc. For more choices, welcome contact us for help. 注释: 其它温度可定制, 欢迎联系赛尔特电子有限公司。

*The length of leadwires can be customized as required. 为引脚长度可根据客户要求定制。



Standard Ratings

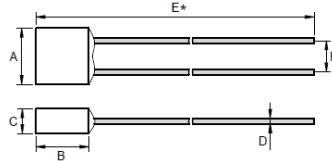
标准参数

Thermal cutoffs (TCO)

温度保险丝



● S&T series 10A&15A



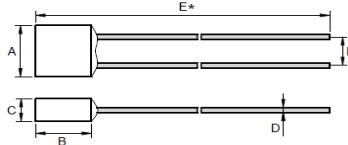
Dimensions (mm)

A	B	C	D	E*	F*
8.3±0.5	7.5±0.5	3.4±0.2	1.05±0.05	45±5	5.2±0.5

Model NO. 型号	Tf (°C) 额定温度	Fuse-Temp (°C) 熔断温度	TH (°C) 保持温度	TM (°C) 极限温度	Ir (A) 额定电流	Ur (V) 额定电压	*In 8/20us (15Time) 标称浪涌	*Imax 8/20us (1 Time) 最大浪涌	UL	CUL	VDE	CCC	PSE	RoHS
S102	102	98±2	72	200	10	250AC	5KA	10KA	●	●	●	●	●	▲
S115	115	111±2	85						●	●	●	●	●	▲
S136	136	131±2	106						●	●	●	●	●	▲
T102	102	98±2	72	200	15/16	250AC	6KA	12KA	●	●	●	●	●	▲
T115	115	111±2	85						●	●	●	●	●	▲
T136	136	131±2	106						●	●	●	●	●	▲



● P&Q series 20A&25A



Dimensions (mm)

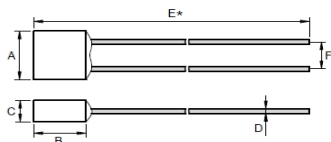
A	B	C	D	E*	F*
10.8±0.5	11.5±0.5	4.8±0.2	1.6±0.05	50±5	6.6±0.5

Model NO. 型号	Tf (°C) 额定温度	Fuse-Temp (°C) 熔断温度	TH (°C) 保持温度	TM (°C) 极限温度	Ir (A) 额定电流	Ur (V) 额定电压	*In 8/20us (15Time) 标称浪涌	*Imax 8/20us (1 Time) 最大浪涌	UL	CUL	ROHS
P115	115	111±2	82	200	20	250AC	15KA	25KA	●	●	▲
P136	136	131±2	102						●	●	▲
Q115	115	111±2	82	200	25	250AC	20KA	30KA	●	●	▲
Q136	136	131±2	102						●	●	▲

SD,TD,PD,QD Series



● SD&TD Series 10A&15/16A



Dimensions (mm)

Series	A	B	C	D	E*	F*
SD/TD	8.6±0.5	7.5±0.5	3.6±0.2	1.05±0.05	45±5	5.2±0.5

Model NO. 型号	Tf (°C) 额定温度	Fuse-Temp (°C) 熔断温度	TH (°C) 保持温度	TM (°C) 极限温度	Ir (A) 额定电流	Ur (V) 额定电压	RoHS
SD102	102	98±2	72	160	10	125DC	▲
SD115	115	111±2	85				▲
SD125	125	121±2	95				▲
SD130	130	125±2	100				▲
SD136	136	131±2	106				▲
SD150	150	145±2	120				▲
TD102	102	98±2	72	160	15/16	125DC	▲
TD115	115	111±2	85				▲
TD125	125	121±2	95				▲
TD130	130	125±2	100				▲
TD136	136	131±2	105				▲
TD150	150	145±2	120				▲

▲ RoHS compliance 可符合环保



Standard Ratings

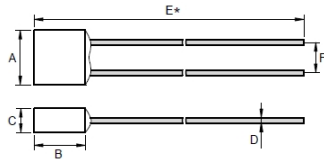
标准参数

Thermal cutoffs (TCO)

温度保险丝



- PD & QD Series 20A&25A



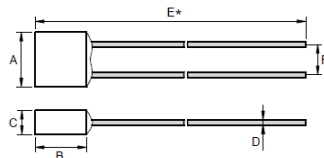
Dimensions (mm)

Series	A	B	C	D	E*	F*
PD/QD	10.7±0.5	11.8±0.5	4.8±0.2	1.6±0.05	50±5	6.6±0.5

Model NO. 型号	Tf (°C) 额定温度	Fuse-Temp (°C) 熔断温度	TH (°C) 保持温度	TM (°C) 极限温度	Ir (A) 额定电流	Ur (V) 额定电压	RoHS
PD102	102	98±2	66	160	20	125DC	▲
PD115	115	111±2	82				▲
PD125	125	121±2	90				▲
PD130	130	125±2	97				▲
PD136	136	131±2	102				▲
PD150	150	145±2	117				▲
QD102	102	98±2	66				160
QD115	115	111±2	82	▲			
QD125	125	121±2	90	▲			
QD130	130	125±2	97	▲			
QD136	136	131±2	102	▲			
QD150	150	145±2	117	▲			



- N & G Series 40A&60A



Dimensions (mm)

Series	A	B	C	D	E*	F*
N	11.5.0±1.0	13±1.0	5.0±0.8	2.0±0.5	50±5	6.6±0.5
G	13.8±1.0	15.5±2.0	5.7±0.8	2.2±0.5	50±5	9.0±0.5

Model 型号	Tf (°C) 额定温度	Fuse-Temp (°C) 熔断温度	TH (°C) 保持温度	TM (°C) 极限温度	*In 8/20us (15Time) 标称浪涌	*Imax 8/20us (1 Time) 最大浪涌	Ir (A) 额定 电流	Ur (VAC) 额定 电压	RoHS
N102	102	99±2	65	160	20KA	40KA	30	250	▲
N115	115	112±2	78	160	20KA	40KA	30	250	▲
N125	125	122±2	90	160	20KA	40KA	30	250	▲
N130	130	126±2	96	160	20KA	40KA	30	250	▲
N136	136	132±2	102	160	20KA	40KA	30	250	▲
N150	150	146±2	116	160	20KA	40KA	30	250	▲
G102	102	99±2	61	160	30KA	60KA	40	250	▲
G115	115	112±2	74	160	30KA	60KA	40	250	▲
G125	125	122±2	84	160	30KA	60KA	40	250	▲
G130	130	126±2	88	160	30KA	60KA	40	250	▲
G136	136	132±2	94	160	30KA	60KA	40	250	▲
G150	150	146±2	108	160	30KA	60KA	40	250	▲

▲ RoHS compliance 可符合环保



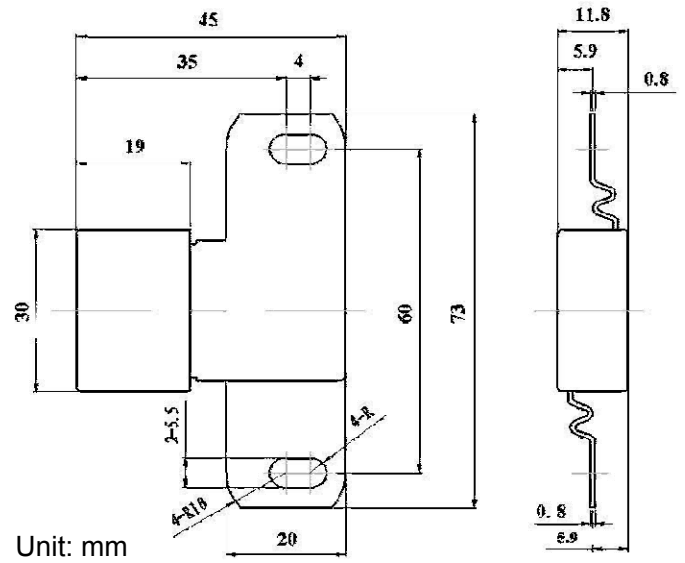
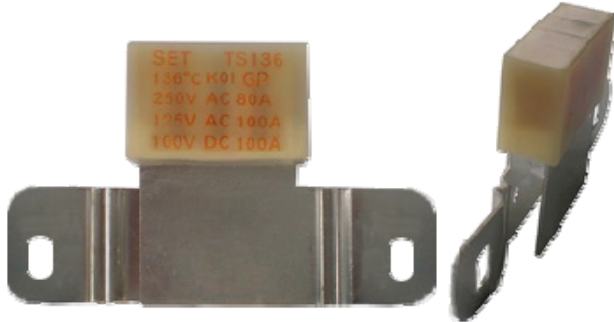
Standard Ratings

标准参数

Thermal cutoffs (TCO)

温度保险丝

● TS series 100A



Model 型号	Tf (°C) 额定温度	Fuse-Temp (°C) 熔断温度	TH (°C) 保持温度	TM (°C) 极限温度	*Imax 8/20us (1 surge) 最大浪涌	Ir (A) 额定 电流	Ur (V) 额定 电压	RoHS
TS102	102	99±2	61	180	100KA	80	250(AC)	▲
						100	125(AC)	▲
						100	100(DC)	▲
TS115	115	112±2	74	180	100KA	80	250(AC)	▲
						100	125(AC)	▲
						100	100(DC)	▲
TS123	123	118±2	82	180	100KA	80	250(AC)	▲
						100	125(AC)	▲
						100	100(DC)	▲
TS125	125	122±2	84	180	100KA	80	250(AC)	▲
						100	125(AC)	▲
						100	100(DC)	▲
TS130	130	126±2	88	180	100KA	80	250(AC)	▲
						100	125(AC)	▲
						100	100(DC)	▲
TS136	136	132±2	94	180	100KA	80	250(AC)	▲
						100	125(AC)	▲
						100	100(DC)	▲
TS150	150	146±2	108	180	100KA	80	250(AC)	▲
						100	125(AC)	▲
						100	100(DC)	▲

Note: 1. Surge current(8/20us) is defined according to UL1449 3rd standard. 浪涌电流依据UL1449标准。



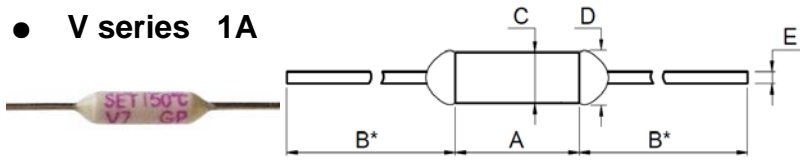
Standard Ratings

标准参数

Thermal cutoffs (TCO)

温度保险丝

● V series 1A



Dimensions 尺寸 mm

A	B	C	D	E
6.5±0.5	37±5	2.1±0.5	≤2.6	0.5±0.05

Model 型号	Tf (°C) 额定温度	Fuse-Temp (°C)实测 熔断温度	Th(°C) 保持 温度	Tm(°C) 极限 温度	Ir(A) 额定 电流	Ur(V) 额定电压	UL	CUL	TUV	PSE	CCC	KTL	RoHS
V0	76	73±2	53	200	1	250AC			●	●	●	●	▲
						125AC	●	●					▲
						50DC	●	●					▲
V18	86	81±2	61	200	1	250AC			●	●	●	●	▲
						125AC	●	●					▲
						50DC	●	●					▲
V21	97	93±2	70	200	1	125AC	●	●					▲
						50DC	●	●					▲
V1	102	98±2	79	200	1	250AC			●	●	●	●	▲
						125AC	●	●					▲
						50DC	●	●					▲
V2	115	111±2	91	200	1	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
V3	125	121±2	100	200	1	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
V4	130	125±2	106	200	1	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
V8	133	130±2	111	200	1	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
V5	135	130±2	111	200	1	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
V9	136	131±2	112	200	1	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
V13	139	135±2	115	200	1	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
V6	145	140±2	121	200	1	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
V7	150	145±2	126	200	1	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲

Note: other temperatures can be customized, such as: 85°C, 90°C, 92°C, 95°C,, 100°C, 103°C, 108°C, 117°C, 120°C, 127°C, and etc. For more choices, welcome contact us for help. 注释: 其它温度可定制, 欢迎联系赛尔特电子有限公司。

*The length of learwires can be customized as required.为引脚长度可根据客户要求定制。



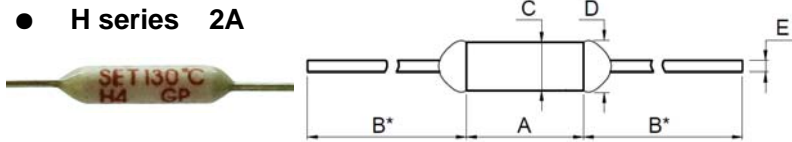
Standard Ratings

标准参数

Thermal cutoffs (TCO)

温度保险丝

● H series 2A



Dimensions 尺寸 mm

A	B	C	D	E*
9±0.5	36±5	2.5±0.5	≤3.0	0.54±0.05

Model 型号	Tf(°C) 额定 温度	Fuse-Temp (°C)实测 熔断温度	Th(°C) 保持 温度	Tm(°C) 极限 温度	I _r (A) 额定 电流	Ur(V) 额定电压	UL	CUL	TUV	PSE	CCC	KTL	RoHS
H0	76	73±2	53	200	2	250AC			●	●	●	●	▲
						125AC	●	●					▲
						50DC	●	●					▲
H18	86	81±2	61	200	2	250AC			●	●	●	●	▲
						125AC	●	●					▲
						50DC	●	●					▲
H21	97	93±2	70	200	2	125AC	●	●					▲
						50DC	●	●					▲
H1	102	98±2	79	200	2	250AC			●	●	●	●	▲
						125AC	●	●					▲
						50DC	●	●					▲
H2	115	111±2	91	200	2	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
H3	125	121±2	100	200	2	250AC	●	●	●	●	●	●	▲
						60DC	●	●					▲
H4	130	125±2	106	200	2	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
H8	133	130±2	111	200	2	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
H5	135	130±2	111	200	2	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
H9	136	131±2	112	200	2	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
H13	139	135±2	115	200	2	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
H6	145	140±2	121	200	2	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
H7	150	145±2	126	200	2	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
V32/H32	205	199±2	169	250	1 / 2	250AC			●		●	●	▲
						125AC	●	●					▲
						60DC	●	●	●		●	●	▲
V31/H31	221	218±2	188	250	1 / 2	250AC			●		●	●	▲
						125AC	●	●					▲
						60DC	●	●	●		●	●	▲

Note: other temperatures can be customized, such as: 85°C, 90°C, 92°C, 95°C, 100°C, 103°C, 108°C, 117°C, 120°C, 127°C, and etc. For more choices, welcome contact us for help. 注释: 其它温度可定制, 欢迎联系赛尔特电子有限公司。

*The length of leadwires can be customized as required. 为引脚长度可根据客户要求定制。



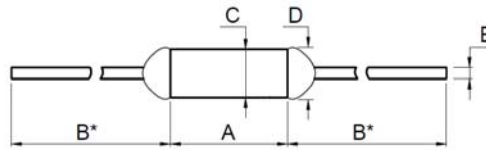
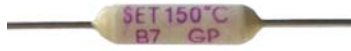
Standard Ratings

标准参数

Thermal cutoffs (TCO)

温度保险丝

● B series 3A



Dimensions 尺寸 mm

A	B	C	D	E
10±0.5	35±5	3.0±0.5	≤3.5	0.54±0.05

Model 型号	Tf (°C) 额定 温度	Fuse-Temp (°C)实测 熔断温度	Th(°C) 保持 温度	Tm(°C) 极限 温度	Ir(A) 额定 电流	Ur(V) 额定电压	UL	CUL	TUV	PSE	CCC	KTL	RoHS
B0	76	73±2	53	200	3	250AC			●	●	●	●	▲
						125AC	●	●					▲
						50DC	●	●					▲
B18	86	81±2	61	200	3	250AC			●	●	●	●	▲
						125AC	●	●					▲
						50DC	●	●					▲
B21	97	93±2	70	200	3	125AC	●	●					▲
						50DC	●	●					▲
B1	102	98±2	79	200	3	250AC			●	●	●	●	▲
						125AC	●	●					▲
						50DC	●	●					▲
B2	115	111±2	91	200	3	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
B3	125	121±2	100	200	3	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
B4	130	125±2	106	200	3	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
B8	133	130±2	111	200	3	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
B5	135	130±2	111	200	3	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
B9	136	131±2	112	200	3	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
B13	139	135±2	115	200	3	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
B6	145	140±2	121	200	3	250AC	●	●	●	●	●	●	▲
						50DC	●	●					▲
B7	150	145±2	126	200	3	250AC	●	●	●	●	●	●	▲
						50DC	●	●	●	●	●	●	▲
B32	205	199±2	169	250	3	125AC	●	●	●		●	●	▲
						60DC	●	●	●		●	●	▲
B31	221	218±2	188	250	3	125AC	●	●	●		●	●	▲
						60DC	●	●	●		●	●	▲

Note: other temperatures can be customized, such as: 85°C, 90°C, 92°C, 95°C, 100°C, 103°C, 108°C, 117°C, 120°C, 127°C, and etc. For more choices, welcome contact us for help. 注释: 其它温度可定制, 欢迎联系赛尔特电子有限公司。

*The length of leadwires can be customized as required. 为引脚长度可根据客户要求定制。



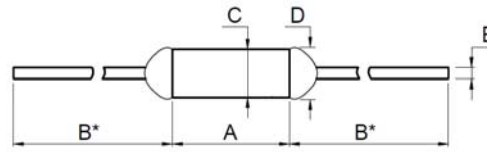
Standard Ratings

标准参数

Thermal cutoffs (TCO)

温度保险丝

● C series 5A



Dimensions 尺寸 mm

A	B	C	D	E
11.5±0.5	35±5	3.3±0.5	≤3.8	0.8±0.05

Model 型号	Tf (°C) 额定温度	Fuse-Temp (°C)实测 熔断温度	Th(°C) 保持 温度	Tm(°C) 极限 温度	Ir(A) 额定 电流	Ur(V) 额定电压	*Imax 8/20us (1 Time) 最大浪涌								
								UL	CUL	TUV	PSE	CCC	KTL	RoHS	
C0	76	73±2	53	200	5	250AC	5KA			●	●	●	●	▲	
C18	86	81±2	61	200	5	250AC				●	●	●	●	●	▲
						125AC		●	●					▲	
						50DC		●	●					▲	
C21	97	93±2	70	200	5	125AC		●	●					▲	
						50DC		●	●					▲	
C1	102	98±2	77	200	5	250AC			●	●	●	●	●	▲	
						125AC	●	●					▲		
						50DC	●	●					▲		
C2	115	111±2	89	200	5	250AC	●	●	●	●	●	●	▲		
						7 50DC	●	●					▲		
C3	125	121±2	98	200	5	250AC	●	●	●	●	●	●	●	▲	
						7 50DC	●	●					▲		
C4	130	125±2	103	200	5	250AC	●	●	●	●	●	●	●	▲	
						7 50DC	●	●					▲		
C8	133	130±2	108	200	5	250AC	●	●	●	●	●	●	●	▲	
						7 50DC	●	●					▲		
C5	135	130±2	108	200	5	250AC	●	●	●	●	●	●	●	▲	
						7 50DC	●	●					▲		
C9	136	131±2	111	200	5	250AC	●	●	●	●	●	●	●	▲	
						7 50DC	●	●					▲		
C13	139	135±2	112	200	5	250AC	●	●	●	●	●	●	●	▲	
						7 50DC	●	●					▲		
C6	145	140±2	118	200	5	250AC	●	●	●	●	●	●	●	▲	
						7 50DC	●	●					▲		
C7	150	145±2	123	200	5	250AC	●	●	●	●	●	●	●	▲	
						7 50DC	●	●					▲		
C32	205	199±2	167	250	5	125AC	●	●	●		●	●	●	▲	
						60DC	●	●	●		●	●	▲		
C31	221	218±2	186	250	5	125AC	●	●	●		●	●	●	▲	
						60DC	●	●	●		●	●	▲		

Note: other temperatures can be customized, such as: 85°C, 90°C, 92°C, 95°C, 100°C, 103°C, 108°C, 117°C, 120°C, 127°C, and etc. For more choices, welcome contact us for help. 注释: 其它温度可定制, 欢迎联系赛尔特电子有限公司。

The length of learwires can be customized as required.为引脚长度可根据客户要求定制。



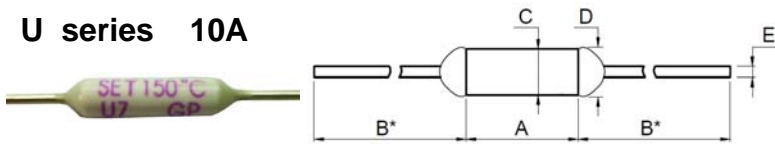
Standard Ratings

标准参数

Thermal cutoffs (TCO)

温度保险丝

U series 10A



Dimensions (mm)

Series	A	B	C	D	E
U	14.0±0.5	34±5	4.0±0.5	≤4.5	1.05±0.05

Model	Tf (°C)	Fuse-Temp (°C)	Th(°C)	Tm(°C)	Ir(A)	Ur (V)	*Imax 8/20us (1 Time) 最大浪涌				
								CCC	TUV	ROHS	
U0	76	73±2	43	200	10	250AC	8KA	●	●	▲	
						60DC		●	●	▲	
U18	86	81±2	51	200	10	250AC		●	●	▲	
						60DC		●	●	▲	
U1	102	98±2	72	200	10	250AC		10KA	●	●	▲
						60DC			●	●	▲
U2	115	111±2	85	200	10	250AC	●		●	▲	
						60DC	●		●	▲	
U3	125	121±2	95	200	10	250AC	●		●	▲	
						60DC	●		●	▲	
U4	130	125±2	100	200	10	250AC	●		●	▲	
						60DC	●		●	▲	
U5	135	130±2	105	200	10	250AC	●		●	▲	
						60DC	●		●	▲	
U6	145	140±2	115	200	10	250AC	●		●	▲	
						60DC	●		●	▲	
U7	150	145±2	120	200	10	250AC	●		●	▲	
						60DC	●		●	▲	
U16	160	155±2	130	200	10	250AC	●		●	▲	
						60DC	●		●	▲	
U32	205	199±2	167	250	10	250AC	●		●	▲	
						60DC	●		●	▲	
U31	221	218±2	186	250	10	250AC	●	●	▲		
						60DC	●	●	▲		

Note: other temperatures can be customized, such as: 85°C, 90°C, 92°C, 95°C, 100°C, 103°C, 108°C, 117°C, 120°C, 127°C, and etc. For more choices, welcome contact us for help. 注释: 其它温度可定制, 欢迎联系赛尔特电子有限公司。

The length of leadwires can be customized as required. 为引脚长度可根据客户要求定制。



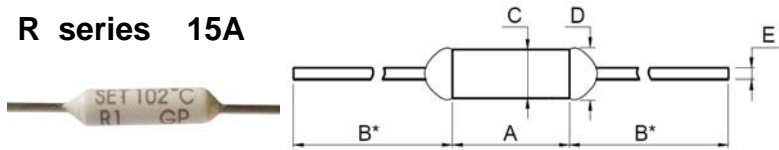
Standard Ratings

标准参数

Thermal cutoffs (TCO)

温度保险丝

R series 15A



Dimensions (mm)

Series	A	B	C	D	E
R	14.0±0.5	34±5	4.0±0.5	≤4.5	1.2±0.05

Model	Tf (°C)	Fuse-Temp (°C)	Th(°C)	Tm(°C)	Ir(A)	Ur (V)	*Imax 8/20us (1 Time) 最大浪涌	CCC	TUV	ROHS	
R0	76	73±2	43	200	15	250AC	12KA	●	●	▲	
						60DC		●	●	▲	
R18	86	81±2	51	200	15	250AC		●	●	▲	
						60DC		●	●	▲	
R1	102	98±2	72	200	15	250AC		15KA	●	●	▲
						60DC			●	●	▲
R2	115	111±2	85	200	15	250AC			●	●	▲
						60DC			●	●	▲
R3	125	121±2	95	200	15	250AC			●	●	▲
						60DC			●	●	▲
R4	130	125±2	100	200	15	250AC			●	●	▲
						60DC			●	●	▲
R5	135	130±2	105	200	15	250AC	●		●	▲	
						60DC	●		●	▲	
R6	145	140±2	115	200	15	250AC	●		●	▲	
						60DC	●		●	▲	
R7	150	145±2	120	200	15	250AC	●		●	▲	
						60DC	●		●	▲	
R16	160	155±2	130	200	15	250AC	●		●	▲	
						60DC	●		●	▲	
R32	205	199±2	167	250	15	250AC	●		●	▲	
						60DC	●		●	▲	
R31	221	218±2	186	250	15	250AC	●		●	▲	
						60DC	●		●	▲	

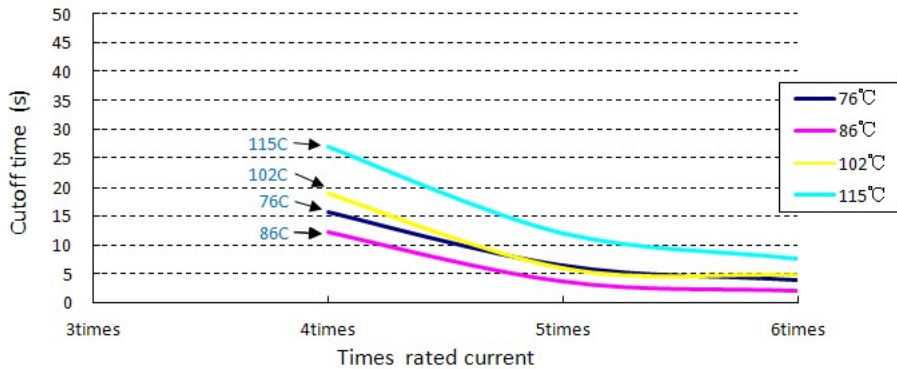
Note: other temperatures can be customized, such as: 85°C, 90°C, 92°C, 95°C, 100°C, 103°C, 108°C, 117°C, 120°C, 127°C, and etc. For more choices, welcome contact us for help. 注释: 其它温度可定制, 欢迎联系赛尔特电子有限公司。

The length of learwires can be customized as required. 为引脚长度可根据客户要求定制。



Performance Curves1 性能曲线1(电流敏感度)

Over Current VS Cutoff Time Curve K series(Ir:2A)



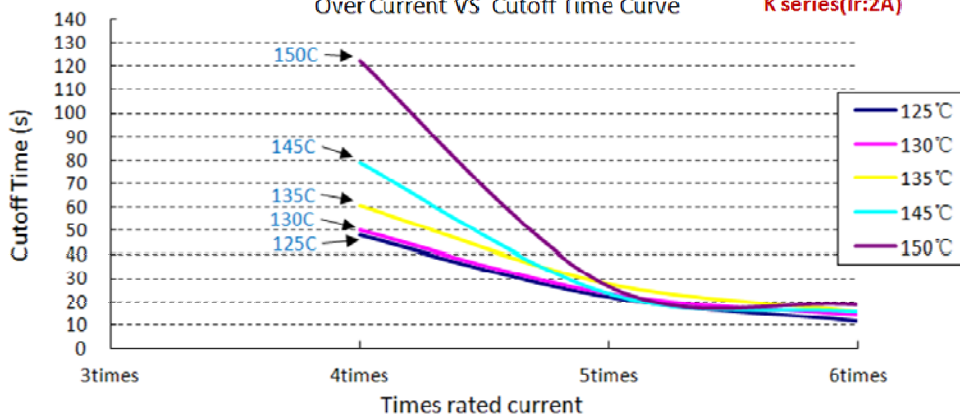
这是温度保险丝K系列在室温25C下, 通4~6倍额定电流, 温度保险丝的断开时间曲线。

其他系列特性系列曲线请联系赛尔特公司。

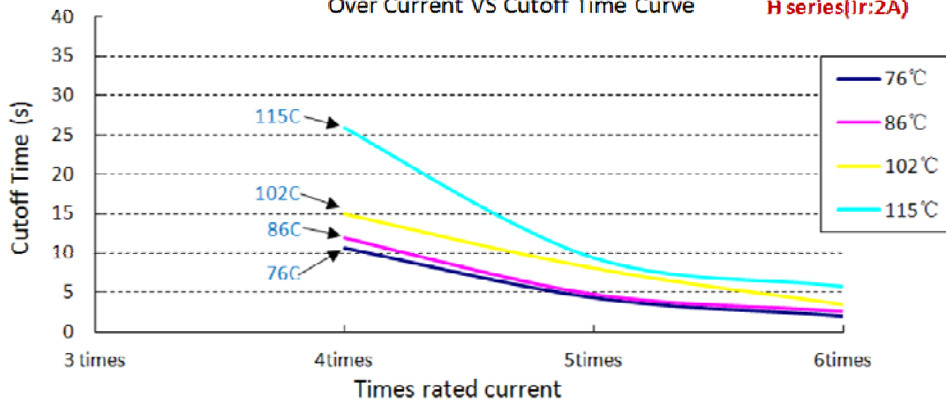
Important note:

This is an illustrated curve , Please contact us for confirmative technical data& curve.

Over Current VS Cutoff Time Curve K series(Ir:2A)



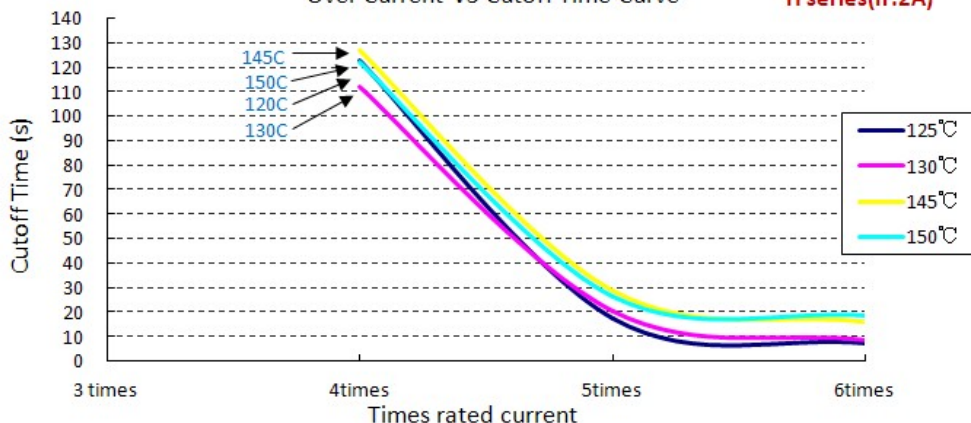
Over Current VS Cutoff Time Curve H series(Ir:2A)



这是温度保险丝H系列在室温25C下, 通4~6倍额定电流, 温度保险丝的断开时间曲线。

其他系列特性系列曲线请联系赛尔特公司。

Over Current VS Cutoff Time Curve H series(Ir:2A)

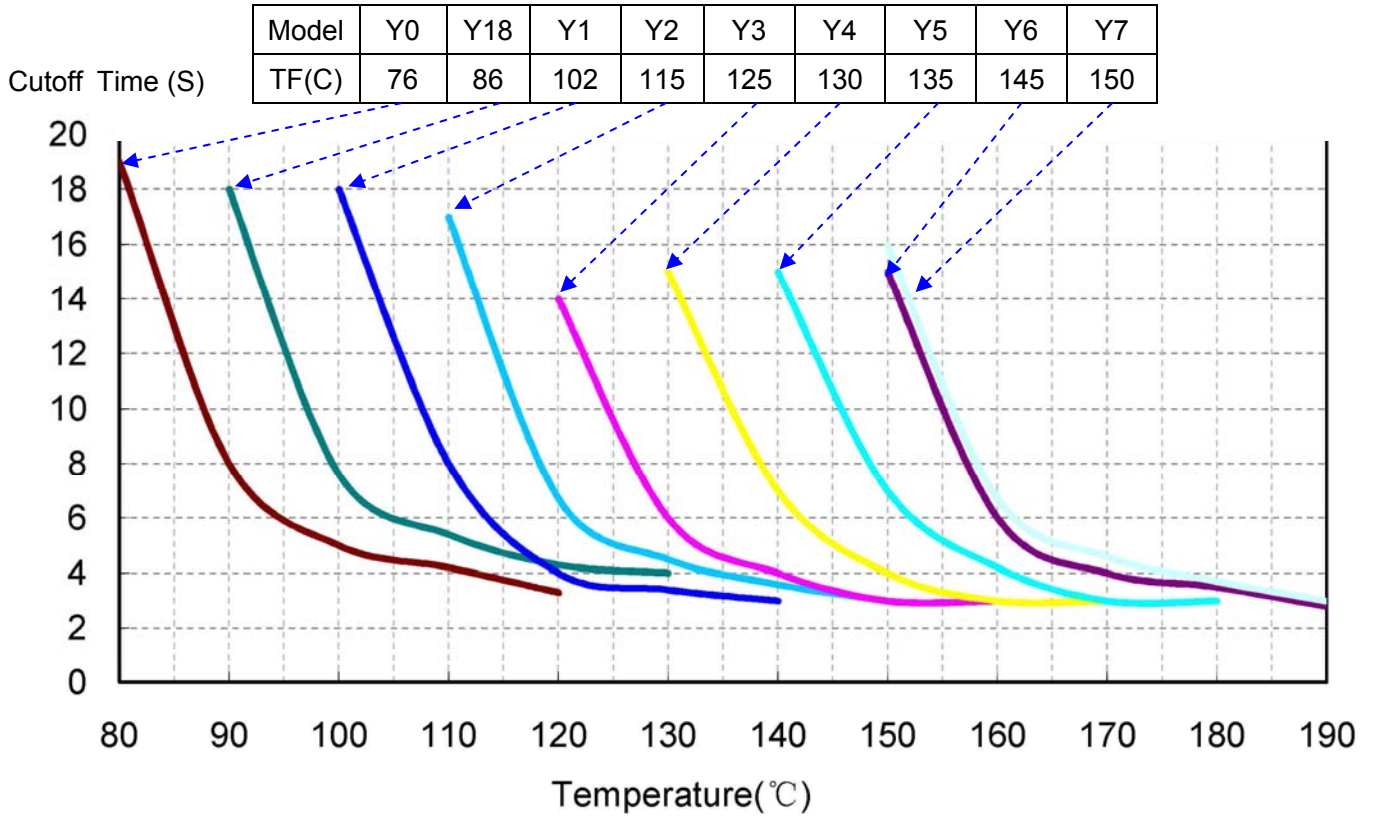


Important note:

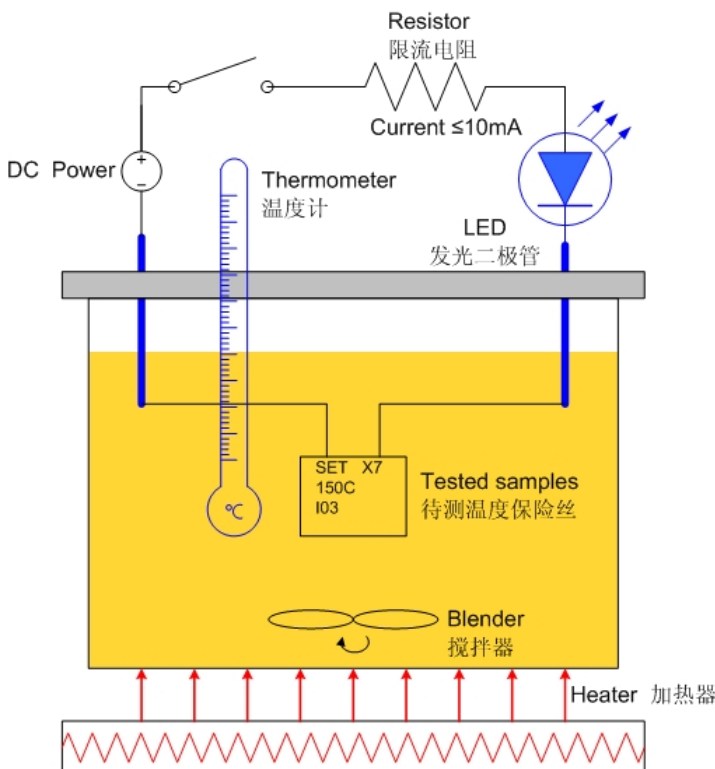
This is an illustrated curve , Please contact us for confirmative technical data& curve.

Performance Curves2 性能曲线2 (温度敏感度)

Temperature VS Cutoff Time (温度VS断开时间)



Tested diagram 测量示意图



这是温度保险丝Y (5A) 系列的温度敏感度曲线簇，测试温度保险丝在特定温度下，完全断开所需要的时间。测试条件如左图所示。

如需其他产品系列曲线，请联系赛尔特电子公司。

Important note:

This is an illustrated curve , Please contact us for confirmative technical data& curve.



Safety Precautions 安全预防措施

【1】 Each thermal-link has specific Electrical and Temperature Rating and must be used within the prescribed ratings. These ratings include Tf (Rated Functioning Temperature), Th or Tc (Holding Temperature), Tm (Maximum Temperature Limit), and the electrical ratings. Please see the technical data sheet.

使用中须注意，每个型号的温度保险丝都有其特定的电流、电压规格以及温度规格，包括Tf（额定动作温度）、Th 或者 Tc（保持温度）、Tm（极限温度）以及其电流、电压的规格，详见数据表。

【2】 For reason of safety that a thermal-link is a non-repairable item and that, in case of replacement an equivalent thermal-link with the same catalogue number shall be used, mounted in exactly the same way.

基于安全原因，温度保险丝是不可修复的产品，替换时应使用同类别同型号的温度保险丝并且严格按照同样的方法正确安装。

【3】 Install thermal-links so that their temperatures do not continuously exceed the Holding Temperature specified in the individual specification.

安装温度保险丝时要确保其应用环境的温度不会超过其相应规格中的保持温度。

【4】 The end product should be designed so that thermal-link detects only intended heat source (radiant, convection, and /or conductance). For example, in a heater application, thermal-link should not be heated through lead wire which will accelerate the fusing off of the thermal-link, In case of a transformer or motor application, where the temperature should be controlled in a transformer or motor coil, and thermal-link should have good heat conductive contact with the transformer or motor coil.

最终产品需要确保温度保险丝仅能从预定的热源处（辐射源、对流源、和/或热传导）感受温度。举例来说，如应用于加热器，温度保险丝不能让导线过多受热，这样会加速保险丝熔化断裂；如用于变压器或发动机，温度应该由变压器或发动机线圈控制，这时温度保险丝就需要与变压器或发动机线圈之间有良好的热传导。

【5】 It is recommended that using the dummy thermal-link having an internal thermocouple to select the proper temperature rating and location of the thermal-link.

建议采用内置热电偶式的仿真温度保险丝来确定适合的温度要求和安装位置。

【6】 Do not locate the thermal-link on an assembly subjected to severe continuous vibration.

勿将温度保险丝安装在可能经常出现剧烈振动的地方。

【7】 The end product should be tested to ensure that potentially abnormal conditions do not exposed the thermal-link to the temperature exceeding its Tm.

需对最终产品进行测试，以确保潜在的异常状况不会导致温度保险丝超过其极限温度。

【8】 The seal or body must not be damaged, burned or over heated.

保险丝的封口及主体不能受损，烧伤或者过度受热。

【9】 Mounting design of the thermal-links

安装温度保险丝

9.1 Mount the thermal-link at the location where temperature rises evenly.

将温度保险丝安装在可使其温度可以平稳上升的部位。

9.2 Design the lead wire as long as possible and connect it in the way that tension or pressed torsion is not applied to the wire.

确保引脚足够长，且其安装方法不会造成强行按压、拉伸及扭转引脚之现象。

Safety Precautions 安全预防措施
【10】 Lead wire bending 引脚成形

10.1 If the lead has to be used by bending it, bend it at approx 3mm in minimum away from the molded section.

如果一定要弯折引脚，那么应确保弯折处与主体间至少应有3mm的距离。

10.2 Use radio pinchers to bend the wire as shown in Fig.1 and not to damage the molded section of the case and the lead wire. 使用工具钳子如图1要求弯折引脚，并且不要损坏外壳和引脚之间的主体

10.3 Leads should not be cut, nicked, bended sharply, fractured or burned during forming or installation.

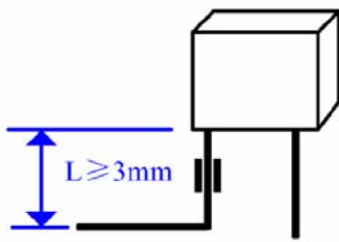


Figure 1

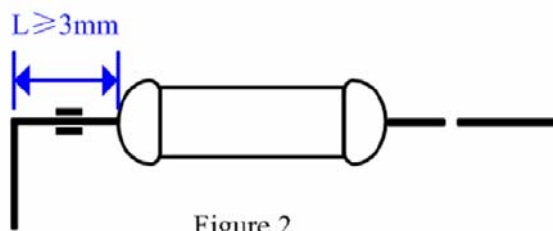


Figure 2

在成形和安装过程中，引脚不应被用力过猛地裁切、切割、弯折，不能断裂或被烧伤。

10.4 Tangential forces on the leads must be avoided (i.e. pushing or pulling on the leads at angle to thermal-link body) as such forces may damage the seal of thermal-links.

避免正对着引脚施加外力（比如与温度保险丝主体成一定角度推或拉），因为这样的力会损坏温度保险丝封口。

【11】 The seal or body must not be damaged, burned or over heated.

应确保外壳密封完好，必须保证无损坏、烧焦、过热情况。

【12】 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 thermal-link.

设计最终产品时应考虑到与引脚接触的零部件因膨胀及收缩所造成的应力、振动或其他运动，应采用柔韧的、易弯曲的引脚或者低阻引线来连接温度保险丝。

【13】 Resistance of connections should be monitored to ensure minimal resistance. Improper connections or secure may result in premature failure of the thermal-link. 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.

应确保接触电阻为最小值，不正确的连接可能造成温度保险丝提前失效，需要对焊接样本进行检查以确保引脚和连接线充分地连接，不正确的连接可能引起封口或其他部份的损坏，不良连接产生的高阻可能导致器件过热而引起短路或损坏。

【14】 Splices and terminations 引脚的结合以及末端材料

14.1 If it is necessary to bare the lead of wire, there shall be an arrangement that prevents deflection or damage of the thermal-link wires. 若必需外露一定长度的引脚，应该采取可以防止温度保险丝引脚歪斜或损坏的措施。

14.2 Terminals or clamps should be of corrosion resistance materials. 所采用的末端材料或夹具应为抗腐蚀材料。

14.3 Appropriate free lengths of wire and sufficiently flexible wire connections should be used. Thermal-links and splices should be secured to prevent vibration or flexing of thermal-links and splices during normal operation.



Safety Precautions 安全预防措施

【15】 Soldering of leads 引脚焊接

15.1 Soldering should be carried out within the soldering conditions listed in table 1.

15.2 Because the thermal element of thermal-link is a fusible alloy which connected with lead wires, improper soldering operation (too high soldering temperature, too long soldering time, too short lead wire used etc.) will cause thermal element damaged by the excessive heat transmit from the lead wire which may result in premature opening of thermal-link.

由于温度保险丝中与引脚连接的感温体是可熔化的合金，因此不正确的焊接操作（例如：温度过高、焊时过长、引脚过短等）可能导致感温体被引脚传递的过高热量波及，从而使得温度保险丝提前断开。

15.3 When soldering is required under severe conditions listed other than specified table 1, use a heat sink on thermal-link lead wire between solder joint and thermal-link body.

若需要在比表1规定更为严苛环境下进行焊接时，应在焊接点和温度保险丝主体间的引脚上使用散热装置。

15.4 Perform the soldering operation carefully so that the pull/push and twist tensions are not applied to thermal-link body and lead wire. 焊接时应小心，以避免温度保险丝主体和引脚遭受到推/拉力以及扭力。

15.5 After soldering leave it for natural cooling for longer than 20 sec. During this cooling time, never move the thermal-link body and lead wire. 焊接后应让其自动冷却20秒以上，在冷却期间，勿移动温度保险丝本体和引脚。

【16】 Location of thermal-link with regard to wet application 安装温度保险丝时应注意防潮

If thermal-link is applied to coffeepot, hot-water heater, dryer, hygostat, etc., locate the thermal-link at the position where thermal-link is protected from breakage by spilling water or other liquid and from damage by high humidity.

如果温度保险丝是用于咖啡壶、热水器、干燥机、温度调节器等环境下，那么应将温度保险丝安装在无水泄漏和非高湿度的部位。

【17】 After Installation, the end construction shall comply with the appliance standard.

安装完成后，应确保整体结构符合应用标准的要求。

Table 1.soldering time (Sec) 表1: 焊接时间 (秒)

Function temperature Tf 额定温度℃	Max allowable soldering time (s) 最大允许焊接时间			Solder temperature 焊接温度
	Length of Lead wire (L) 引线长度			
	10mm	20mm	30mm	
102~115	1*	2	3	400℃
116~135	1*	3	5	
136~150	3	5	5	
151~221	4	6	7	

*Need to add auxiliary heat conduction for not damage the thermal fuse unexpectedly.

*为防止温度保险丝被焊断，焊接时需要增加辅助散热装置。

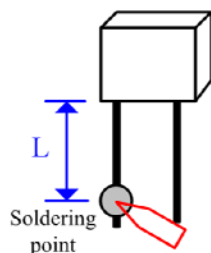


Figure 3

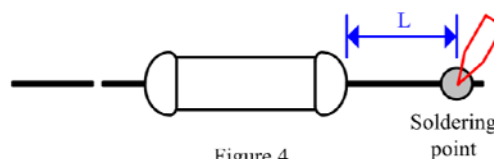
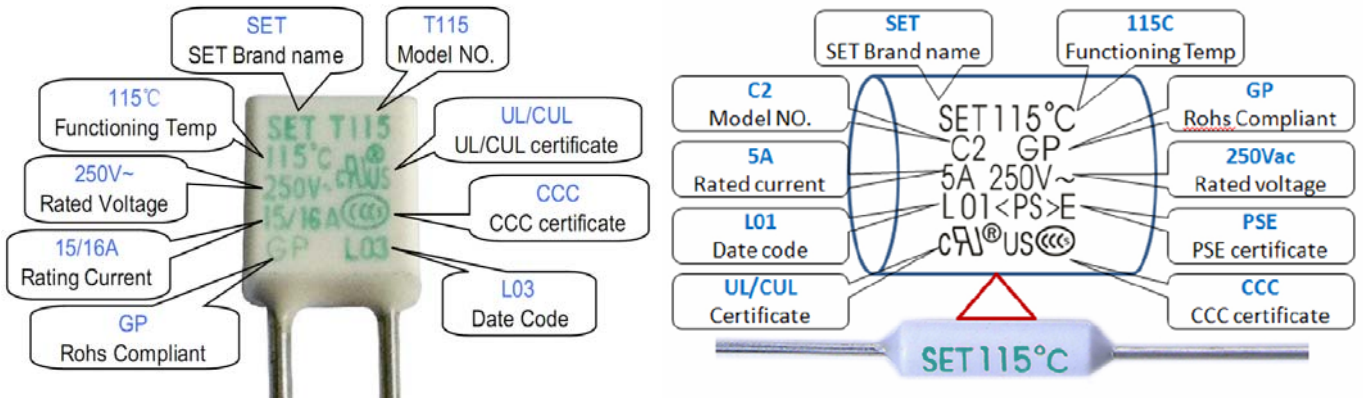


Figure 4



Marking 标志



Standard Packing information 标准包装

	Model 型号	I _r (A) 额定电流	Length of Lead wire (mm) 引脚长度	QTY (PC) 数量	Gross Weight (Kg) 毛重	Size of Carton (cm) 纸箱尺寸
Radial 方壳 	F	1	69	50,000	18	44x30x26
	K	2	69	50,000	20	44x30x26
	X	3	69	50,000	21	44x30x26
	Y	5	69	30,000	24.5	44x30x26
	S	10	45	25,000	26.5	44x30x26
	T	15	45	25,000	26.5	44x30x26
	P	20	50	9,000	25.5	44x30x26
	Q	25	50	9,000	26	44x30x26
	N	30	50	4,500	20	44x30x26
	G	40	50	4,500	24.5	44x30x26
Axial 瓷管 	V	1	37	50,000	11.5	44x30x26
	H	2	36	50,000	15.5	44x30x26
	B	3	53	50,000	22.5	44x30x26
	C	5	38	30,000	19.5	44x30x26
	U	10	38	15,000	17.5	44x30x26
	R	15	38	15,000	17.5	44x30x26

Customized Service 定制服务



Insulation sleeve 加绝缘套管



Lead wire Cutting 引脚裁切



Lead wire Bending 引脚折弯