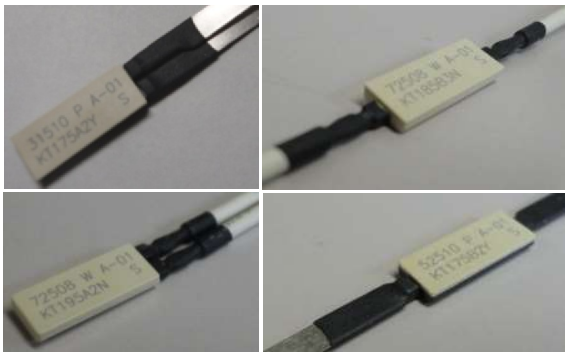
KT1 Series

Features



Variety option
- ■Variety of external terminal option
  Direction, Length, Ni-plate, Lead wire
- ■Current sensitivity option
- ■Automatic reset type, Self holding type

Applications

Heat protection, over current protection for batteries
- ■Medical device battery, Communication device battery, backup battery for infrastructure
- ■Consumer device battery, Lighting device battery
- ■DC motor, Solenoid, etc.

Specifications

Specification item		KT1☐☐A/B☐Y (with PTC)	KT1☐☐A/B☐N
Trip temperature		60℃ ~ 95℃	
Trip temperature tolerance		±5℃	
Reset temperature		40℃ min. (※1)	
Difference between trip and reset temp		7℃ min.	
Resistance		10 mΩ, 15 mΩ, 20mΩ, 25mΩ, 30mΩ max. (※2)	
Contact rating	(Current sensitivity)	Type 1 ~ Type 5 (※3)	
	Type 1	DC12V / 5A	
	Type 2	DC13C / 10A	
	Type 3	DC18V / 15A	
	Type 4	DC13V / 12A	
	Type 5	DC24V / 5A	
Maximum breaking current		120A (DC24V)	
Maximum voltage		DC24V	
Minimum holding voltage		DC2V	-
Maximum leakage current		150mA	-

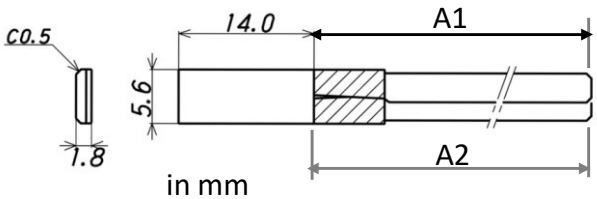
※1: Rest temp is 35℃ min. with 60℃ trip temp product
※2: Resistance depends on length of lead wire/Ni plate and current sensitivity type, etc.
※3: Current sensitivity data are shown in “Typical performance” part

Part numbering

KT1 90 A 3 N - 01W
Ⅰ Ⅱ Ⅲ Ⅳ Ⅴ Ⅵ

Ⅰ. Model name : KT1
Ⅱ. Trip temperature (Celsius)
Ⅲ. Direction of external terminals: A – One side, B – Both sides
Ⅳ. Current sensitivity type number
*Current sensitivity performance depends on part number, please contact us for detail.
Ⅴ. Reset method : N – Automatic reset type(not built-in PTC), Y – Self holding type (built-in PTC)
Ⅵ. Custom option
*Serial number (not marked on product)

KT1☐☐A (Ni-Plate, one side)

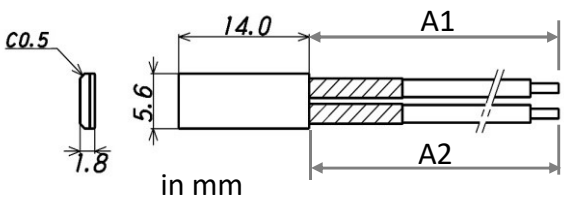


in mm

Example of terminal length

A1	A2
22.0	22.0
23.0	23.0
23.5	23.5
25.0	25.0
28.0	28.0
31.0	31.0
38.0	38.0

KT1☐☐A-W (Lead wire, one side)

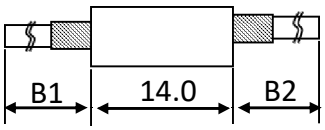


in mm

Example of terminal length

A1	A2
36..0	36.0
37.0	37.0
45.0	45.0
55.0	55.0
60.0	60.0
86.0	86.0
100.0	100.0

KT1☐☐B (Ni-Plate, both sides)

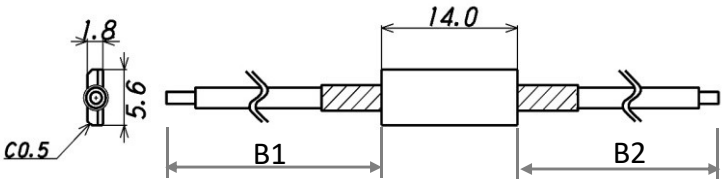


in mm

Example of terminal length

B1	B2
23.0	23.0
28.0	28.0

KT1☐☐B-W (Lead wire, bith sides)



in mm

Example of terminal length

B1	B2
48.5	66.5

Certification, Conformity

Agency / Standard / File No.		Hazardous substance regulation	
UL, cUL	TUV	RoHS 2.0	Halogen Free
UL 60730 CAN/CSA-E60730	EN 60730-2-9	○※1	○※2
File No: E 302419	File No (with PTC): J 50078648 File No (without PTC): R 50078464		

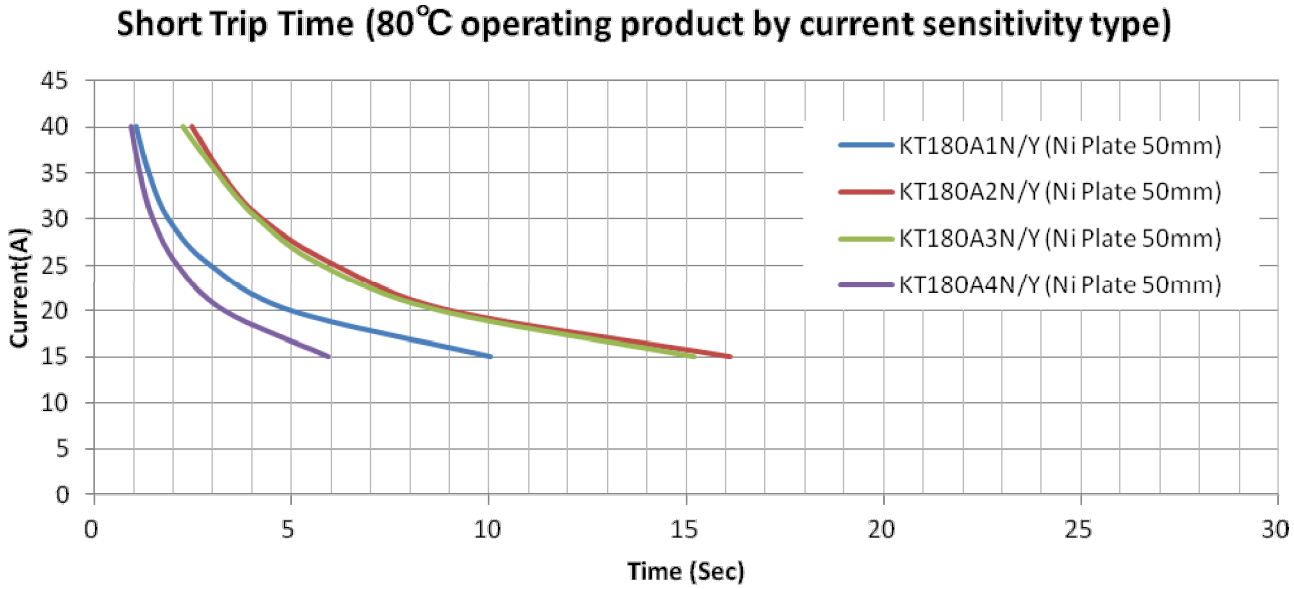
Halogen Free considered: Br is 900ppm or less, Cl is 900ppm or less, total Br+Cl is 1,500ppm or less.

※1: Although ceramic of PTC contains Lead, it is exemption in RoHS directive.

※2: Some legacy part numbers do not meet Halogen free with above criteria as some tube type are not Halogen free. Please contact us for detail.

Caution!) As for TUV file numbers, Takano also has J50078650 (with PTC) and R50078464 (without PTC); however, please use file numbers in above table for your NEW product approval.

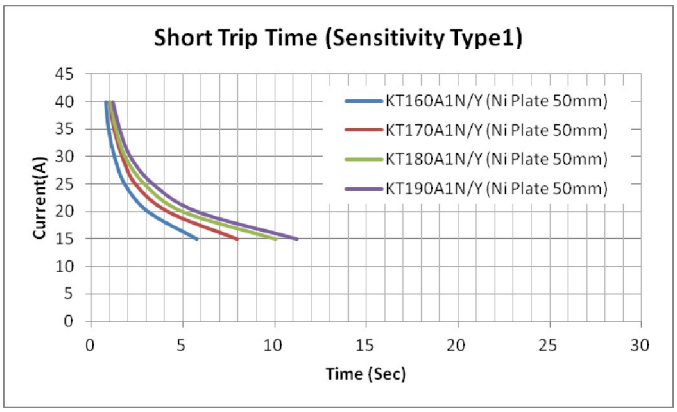
■Current sensitivity data (80℃ trip product, Ni Plate 50mm, by current sensitivity type)



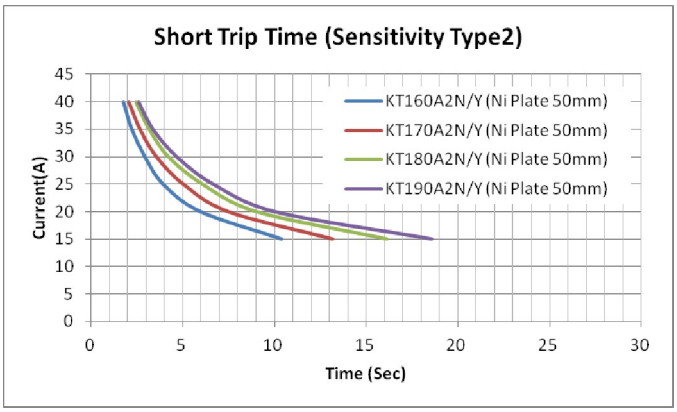
※Type5(KT1☐☐A5N/Y) is same current sensitivity as Type2.

■Current sensitivity data (by current sensitivity type, Ni Plate 50mm, by 60/70/80/90℃ trip)

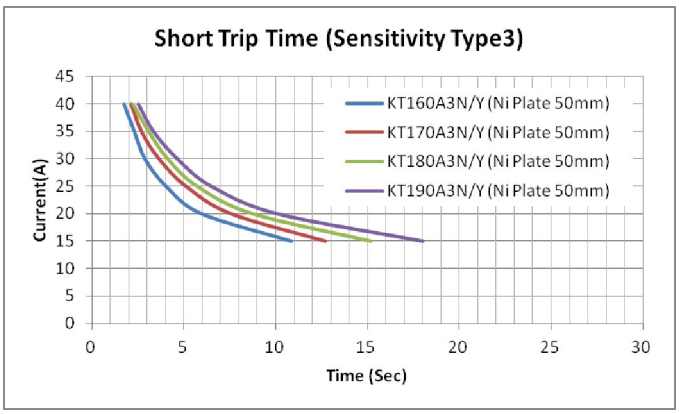
Current sensitivity Type1 (60/70/80/90℃)



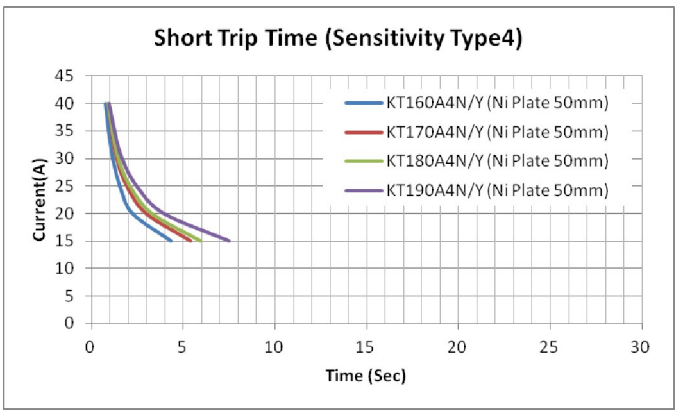
Current sensitivity Type2 (60/70/80/90℃)



Current sensitivity Type3 (60/70/80/90℃)

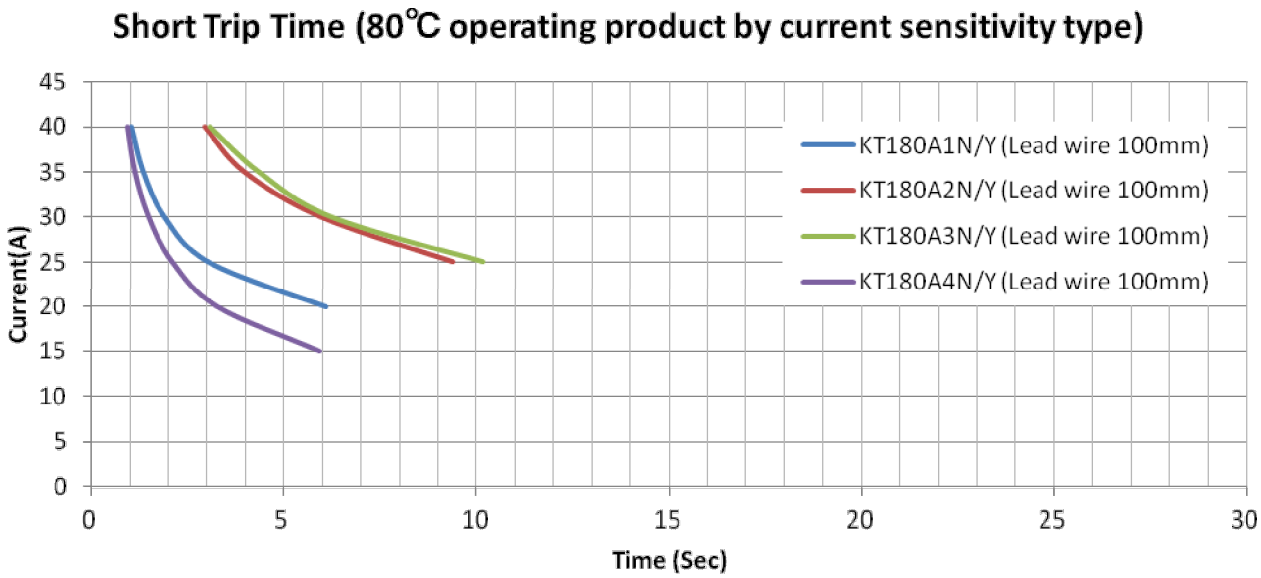


Current sensitivity Type4 (60/70/80/90℃)



※Type5(KT1☐☐A5N/Y) is same current sensitivity as Type2.

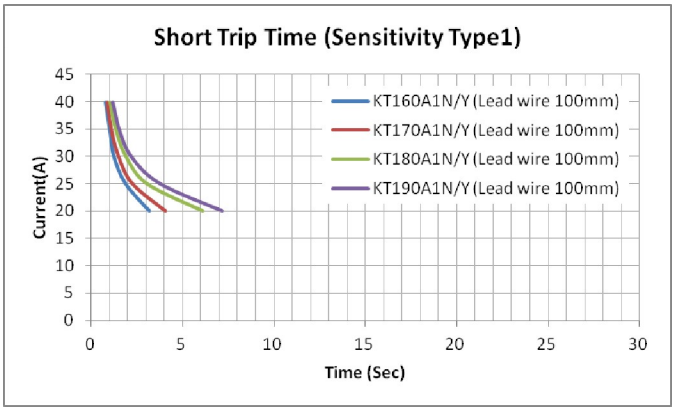
■Current sensitivity data(80℃ trip product, Lead wire100mm, by current sensitivity type)



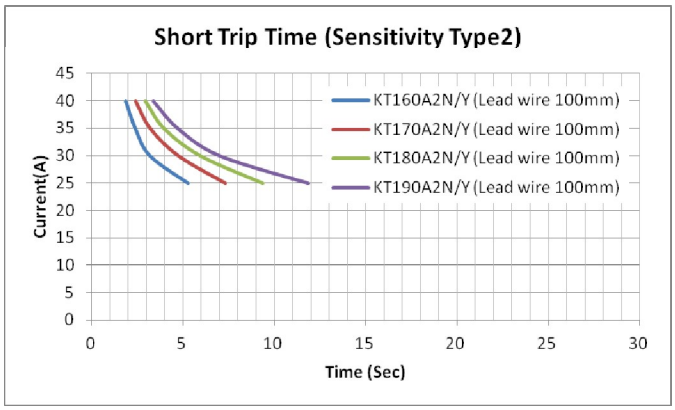
※Type5(KT1☐☐A5N/Y) is same current sensitivity as Type2.

■Current sensitivity data(by current sensitivity type, Lead wire 100mm, by 60/70/80/90℃ trip)

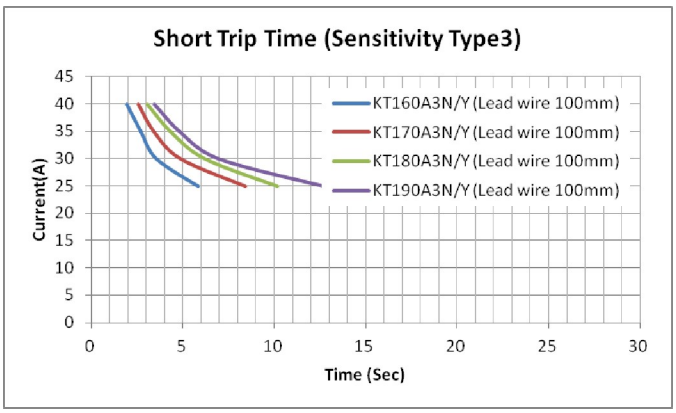
Current sensitivity Type1 (60/70/80/90℃)



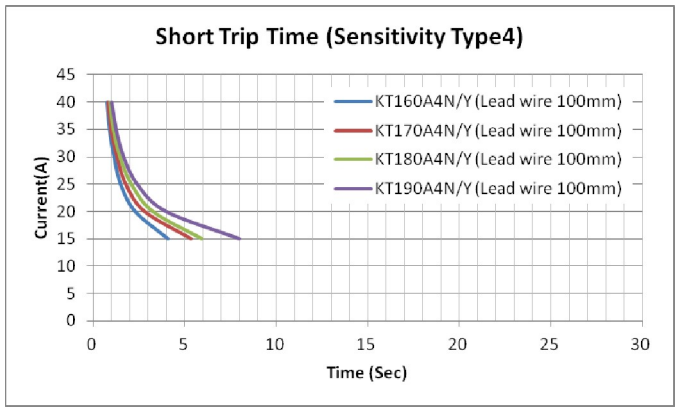
Current sensitivity Type2 (60/70/80/90℃)



Current sensitivity Type3 (60/70/80/90℃)



Current sensitivity Type4 (60/70/80/90℃)



※Type5(KT1☐☐A5N/Y) is same current sensitivity as Type2.