

# Elcut Brand Thermal Cutoff Fuses



Chatham Components is the exclusive North and South American distributor of the

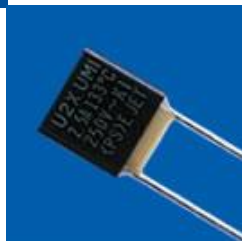
Elcut Brand Thermal Cutoff fuse also known as a TCO, Thermal Link, Thermal Protector and Thermal Fuse. The Elcut brand of thermal cutoffs are manufactured by Uchihashi Estec Co., Ltd of Osaka, Japan. The Elcut thermal fuse is the highest quality thermal fuse available to the manufacturing industry and is manufactured according to

ISO9001 standards. Visit [www.cci-tco.com](http://www.cci-tco.com) for more information on Thermal cutoff fuses from Uchihashi Estec Co.

**Elcut Brand Thermal Cutoffs** are available with axial or radial lead wires. The fusible

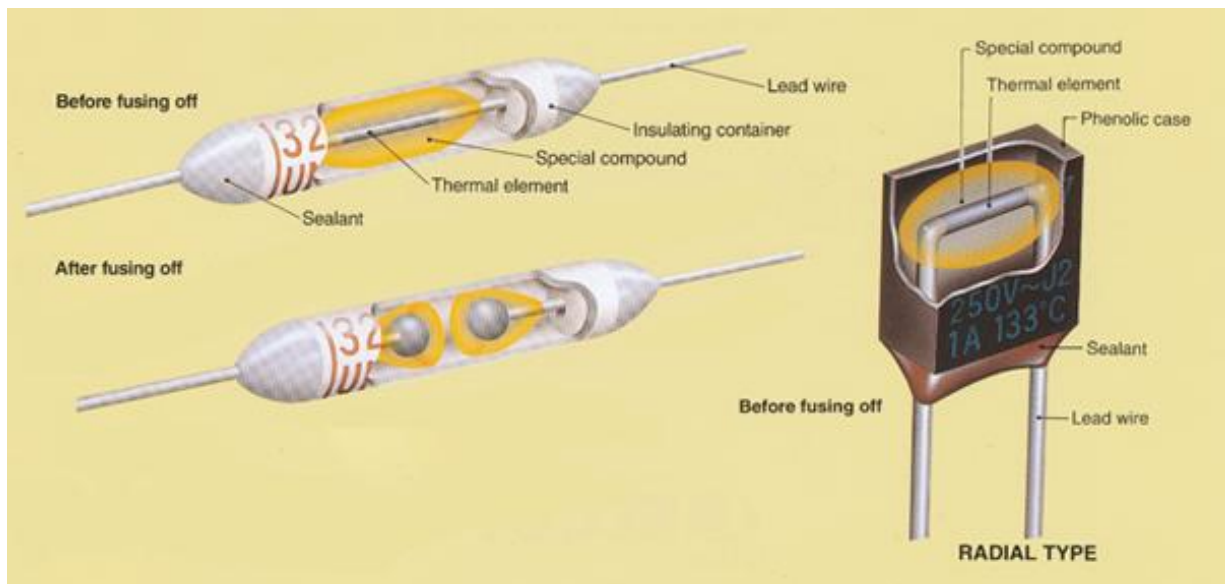


thermal element is a eutectic alloy that is welded across a pair of lead wires. The thermal element is sealed in a special insulated housing, either a ceramic tube in the case of the axial design, or a phenolic case for the radial design. The final product is a high quality miniaturized, fusible alloy-













type thermal cutoff unit with extremely simple construction and high reliability. Elcut thermal protectors are available in a variety of cutoff temperatures and electrical ratings. Elcut thermal cutoffs are approved by most safety rating agencies including UL, cUL, CSA, VDE CCC and PSE.

**Design and Operation** ELCUT brand thermal fuses are of the non-resettable type. A thermal cutoff is integrated into the current carrying circuit and are located near the heat generating section of electrical components such as motors, transformers, power supplies battery packs etc. As the thermal fuse is exposed to over heat conditions, the special resin coating on the thermal element liquifies. When the temperature reaches the melting point of the thermal element, the alloy melts and liquifies. The special resin increases the surface tension of the liquid metal that results in a bulb like formation at each end of the leads. This breaks or “cuts-off” the electrical current through the thermal fuse.



The time required for heat transfer from the heat source to the thermal element in the thermal cut-off fuse depends upon many factors such as the mounting conditions and location. Therefore, compliance with the manufacturer’s installation instructions must be followed. In addition, sufficient testing must be performed to determine the optimal thermal cut-off specification and design for a particular application.










## Product Selection

Elcut Series									
Rated Functioning Temperature (Tf)		6 Axial 	44 Axial 	32 Axial 	S Radial 	12 Axial 	U2 Radial 	X Radial 	22 Axial 
	187°C	-	447* (1A)	-	-	-	-	-	-
	150°C	-	44k (0.5A)	-	-	125* (2A)	U25 (2.5A)	X25* (2.5A)	225R* (5A)
	145°C	-	-	32J (0.8A)	SJ (0.8A)	12J (2A)	U2J (2.5A)	-	22JR (3.5A)
	139°C	-	-	32M (1A)	-	12M (1.5A)	-	-	22MR (2.5A)
	133°C	6X (0.3A)	44X (0.5A)	32X (1A)	SX (1A)	12X (2A)	U2X (2.5A)	X2X (3A)	22XR (4A)
	130°C	-	-	323* (1A)	S3* (1A)	123* (2A)	U23 (2.5A)	X23* (3A)	223R* (5A)
	115°C	62 (0.5A)	442 (1A)	322 (1A)	S2 (1A)	122 (2A)	U22 (2.5A)	X22 (3A)	222R (5A)
	108°C	-	44E (0.5A)	32E (1A)	SE (1A)	12E (2A)	U2E (2A)	X2E (3A)	22ER (4A)
	102°C	-	-	321* (1A)	-	121* (2A)	-	-	221R* (4A)
	76°C	-	-	-	-	12Y (2A)	-	-	22YR (4A)
65°C	-	-	-	-	12G (1.5A)	-	-	-	
0.3A								5A	
<b>Electrical Rating (250 VAC)</b>									

Part Numbers with a \* suffix are not RoHS compliant

Visit [www.cci-tco.com](http://www.cci-tco.com) for full product specifications





## Product Selection (DC Voltage Rated)

Elcut Series - DC Rated Thermal Cutoff									
Rated Functioning Temperature (Tf)		6 Axial 	N Radial 	44 Axial 	12 Axial 	47 Axial 	37 Axial 	22 Axial 	
	187°C	-	-	<u>447*</u> (4A)	-	-	-	-	-
	139°C	-	-	-	<u>12M</u> (7A)	<u>47M</u> (6A)	<u>37M</u> (8A)	<u>22MR</u> (14A)	-
	133°C	-	<u>6X</u> (2.5A)	<u>NCX</u> (4A)	<u>44X</u> (3.5A)	<u>12X</u> (3.5A)	-	-	-
	130°C	-	-	-	<u>123*</u> (5A)	-	-	-	-
	115°C	-	<u>62</u> (2.5A)	<u>NC2</u> (4A)	<u>442</u> (3.5A)	-	-	-	-
	108°C	-	-	<u>44E</u> (2.5A)	-	-	-	-	-
	2.5A								14A
<b>Electrical Rating (50 VDC)</b>									

Part Numbers with a \* suffix are not RoHS compliant

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**Product Selection (Thermal Cutoff / Resistor Combination)**

<b>Elcut Thermal Cutoff / Resistor</b>			
<b>A5MC Series</b> 	<b>Y5JA Series</b> 	<b>EC Series</b> 	<b>BZ05 Series</b> 
<a href="#"><u>A5MC-5R1J</u></a>	<a href="#"><u>Y5JA-200-JP</u></a>	<a href="#"><u>EC-200</u></a>	<a href="#"><u>BZ05-500</u></a>
<a href="#"><u>A5MC-6R8J</u></a>			<a href="#"><u>BZ05-800</u></a>
<a href="#"><u>A5MC-100J</u></a>			
<a href="#"><u>A5MC-150J</u></a>			
<a href="#"><u>A5MC-220J</u></a>			

Visit [www.cci-tco.com](http://www.cci-tco.com) for full product specifications

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