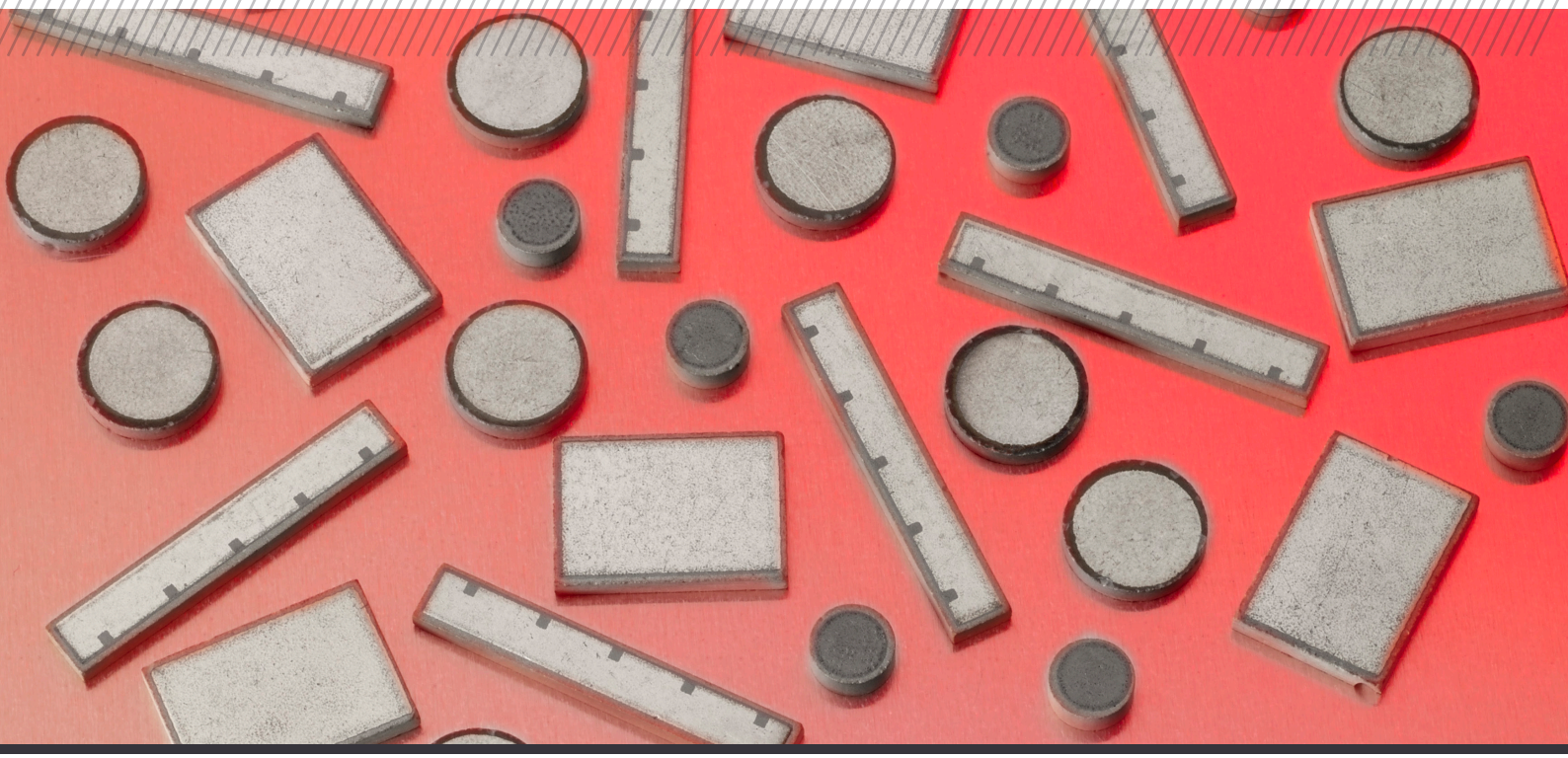
PTI PELONIS TECHNOLOGIES INC.

www.pelonistechnologies.com

PTC Thermistors

Innovation in Motion



OVERVIEW

Pelonis Technologies' innovative PTC Thermistors are at the heart of Fin PTC Air Heaters and PTC Heat Conductors and are a great choice for providing controlled electrical heat. Their design flexibility and self-regulating electric heat characteristics make them ideal for increased heat transfer and they are uniquely engineered to provide safe and energy efficient heating and long life operation.

POSITIVE TEMPERATURE COEFFICIENT (PTC) CHARACTERISTICS

PTC Thermistors have self-regulating characteristics and will not overheat. If a current runs through each thermistor, it will auto-stabilize at a certain temperature. This results in safer operation, better conductivity, greater operating efficiency, a stable electronics response, and longer life expectancy.

INNOVATIVE FEATURES

- Safe
- Energy efficient
- Low cost operation
- No electrical noise
- No thermostat required
- No moving or wearable parts
- Very long operating life

CUSTOM DESIGNS

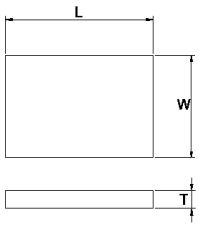
Standard PTC Thermistors are supplied in round, square, or rectangular shapes. Additional sizes and configurations can be customized depending on application requirements and order quantities.

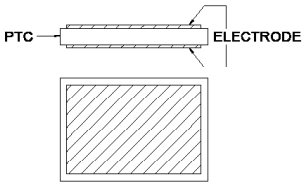
PTC Thermistors can be used in a variety of applications, including:

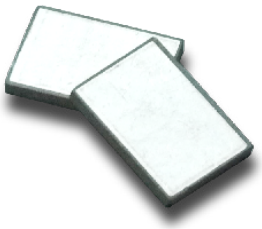
- Heating plates
- Drying machines
- Hair Dryers
- Hot melt glue guns
- Foot warmers
- Diesel/fuel heaters
- Self-regulating heating elements
- Carburetor pre heating
- Irons

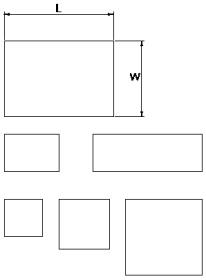
PTC Thermistors are an effective means of safe and energy efficient heating and are ideal for applications where space is limited and where low power consumption and long life operation are desired.

Rectangular PTC Thermistors









All models listed in the specifications table below can be portioned into smaller sizes (MIN= 2.5 x 2.5mm). The resistance of segmented PTC thermistors will increase in proportion with their size.

Example:

- A PTC thermistor of 1000Ω, segmented into 1/2 will have resistance 2000Ω per segment (1000Ω x divide into 2pcs = 2000Ω).

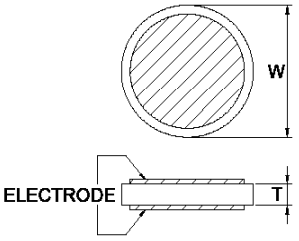
- A PTC thermistor of 20Ω, segmented into 1/4, will have resistance 80Ω per piece (20Ω x divide into 4pcs = 80Ω).

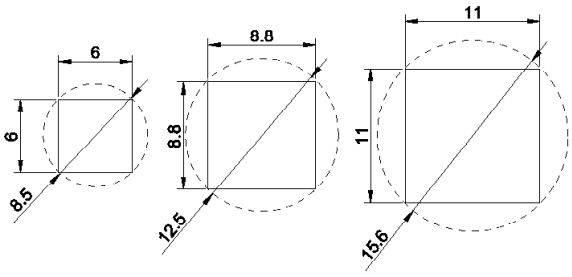
Model	Rated Voltage (V)	Resistance (Ω @ 25℃)	Surface Temperature (℃)	Voltage (V)	Dimensions (mm)			Conductive Layer	
					W	L	Thickness	Al+Sn	Sn
◎ KLC0121401500210-198	12V	1Ω ~ 3Ω	198℃	6~16V	15	21.4	2.1	○	
KLC0121401500150-245			245℃		15	21.4	1.5	○	
KLC0125000780110-160		3Ω ~ 10Ω	160℃	8~18V	7.8	25	1.1	○	
◎ KLC0121401500210-245			245℃		15	21.4	2.1	○	
◎ KLC0121401500210-245	24V	10Ω ~ 20Ω	245℃	12~24V	15	21.4	2.1	○	
◎ KLC0221401500210-245		20Ω ~ 40Ω	245℃	24~36V	15	21.4	2.1	○	
◎ KLC0321401500210-245	48V/72V	40Ω ~ 100Ω	245℃	36~80V	15	21.4	2.1	○	
KLC1021401500210-90	100V~120V	200Ω ~ 600Ω	90℃	90~140V	15	21.4	2.1	○	
KLC1024001500210-150			150℃		15	24	2.1	○	
KLC1024001500210-200			200℃		15	24	2.1	○	
◎ KLC1021401500245-230			230℃		15	21.4	2.45	○	
◎ KLC1021401500210-245			245℃		15	21.4	2.1	○	
◎ KLC1021401500245-245			245℃		15	21.4	2.45	○	
KLC2021401500245-110	200~240V	1000Ω ~ 3000Ω	110℃	180~280V	15	21.4	2.45	○	
KLC2021401500245-130			130℃		15	21.4	2.45	○	
KLC2021401500245-150			150℃		15	21.4	2.45	○	
KLC2023001500210-200			200℃		15	23	2.1	○	
◎ KLC2021401500245-220			220℃		15	21.4	2.45	○	
KLC2021401500210-230			230℃		15	21.4	2.1	○	
◎ KLC2021401500245-230			230℃		15	21.4	2.45	○	
◎ KLC2021401500210-240			240℃		15	21.4	2.1	○	
◎ KLC2021401500245-240			240℃		15	21.4	2.45	○	
◎ KLC2021401500210-250			250℃		15	21.4	2.1	○	
◎ KLC2021401500245-250			250℃		15	21.4	2.45	○	
KLC2021401500210-260			260℃		15	21.4	2.1	○	
◎ KLC3021401500245-220	360V	3500Ω ~ 10000Ω	220℃	280~420V	15	21.4	2.45	○	
KLC1021401500210-245	110V/220V	500Ω ~ 1000Ω	245℃	100~240V	15	21.4	2.1	○	
◎ KLC1021401500245-245			245℃		15	21.4	2.45	○	

Notes on Rectangular PTC Thermistors Specifications Table

- Models with the " ◎ " symbol in the Specification Table are standard in-stock models and the delivery is shorter. For non-standard models, please contact us for current inventory stock status before placing orders.
- Voltage, dimensions, resistance, temperature, or Curie temperature can also be customized for large quantities (longer lead times and large minimum order quantities may apply).
- For lower temperature applications (10℃ ~90℃), please consider our LCHT range of PTC Heat Conductor products with the characteristics of no inrush current, stable power, and adherence to Ohms Law. Ratings: 3V AC/DC ~ 600V AC/DC (CUL, CE), T℃ =10℃ ~250.
- PTC Thermistors contain Pb under the permission of RoHS exemption 7(c)-I: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.

Round PTC Thermistors





For low volume round PTC thermistors with unique dimensions, please also consider using square type PTC thermistors with a slightly higher temperature for faster delivery and lower minimum order quantities.

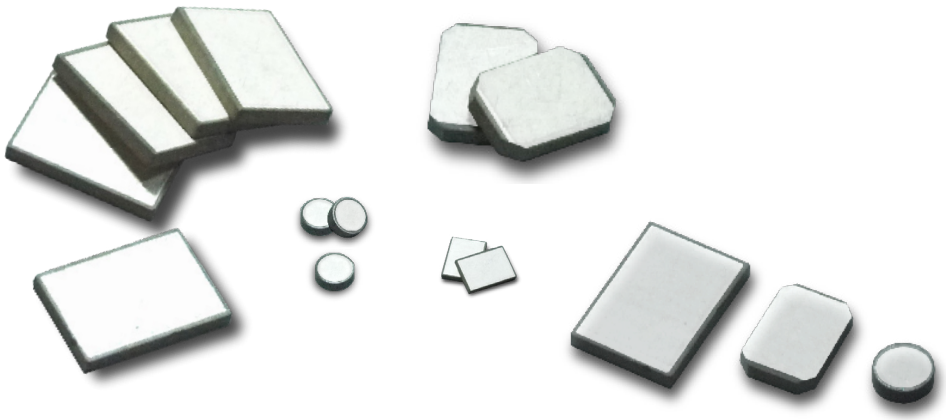
Example:

- A round PTC thermistors of 8.5mm can be replaced with square PTC thermistors with 6.0 x 6.0mm (8.5 x 0.707 = 6.01mm).
- A round PTC thermistors of 12.5mm can be replaced with square PTC thermistors with 8.5 x 8.5mm (12.5 x 0.707 = 8.84mm).
- A round PTC thermistors of 15.6mm can be replaced with square PTC thermistors with 11.0 x 11.0mm (15.6 x 0.707 = 11.03mm) using decimal places of 0.5mm.

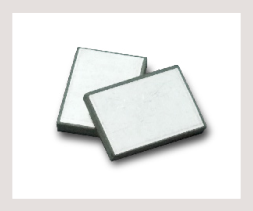
Model	Rated Voltage (V)	Resistance (Ω @25℃)	Surface Temperature (℃)	Dimensions (mm)		Conductive Layer	
				Ø	Thickness	Al+Sn	Sn
KLC0113400230-115	12~24V	6Ω ~ 12Ω	115℃	13.4	2.3	○	
KLC0108000250-95	12~24V	12Ω ~ 24Ω	95℃	8.0	2.5	○	
KLC2008000260-170	200~240V	70Ω ~ 110Ω	170℃	8.0	2.6	○	
KLC2008000300-190	200~240V	1.5KΩ ~ 3KΩ	190℃	8.0	3.0	○	

Notes on Round PTC Thermistors Specifications Table

- Please contact us for current inventory stock status before placing orders.
- Voltage, dimensions, resistance, temperature, or Curie temperature can also be customized for large quantities (longer lead times and large minimum order quantities may apply).
- For lower temperature applications (10℃ ~90℃), please consider our LCHT range of PTC Heat Conductor products with the characteristics of no inrush current, stable power, and adherence to Ohms Law. Ratings: 3V AC/DC ~ 600V AC/DC (CUL, CE), T℃ =10℃ ~250.
- PTC Thermistors contain Pb under the permission of RoHS exemption 7(c)-I: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.



Technical Specifications



Shape	Round	Rectangular
Rated Voltage (V)	12~24V 200~240V	12V 24V 48V/72V 100V~120V 200V~240V 360V 110V/220V
Resistance (Ω @25℃)	6Ω ~ 12Ω 12Ω ~ 24Ω 28Ω ~ 52Ω 70Ω ~ 110Ω 1.5KΩ ~ 3KΩ	1Ω ~ 3Ω 3Ω ~ 10Ω 10Ω ~ 20Ω 20Ω ~ 40Ω 40Ω ~ 100Ω 200Ω ~ 600Ω 1000Ω ~ 3000Ω 3500Ω ~ 10000Ω 500Ω ~ 1000Ω
Surface Temperature (℃)	95℃ 115℃ 170℃ 190℃	198℃ 245℃ 160℃ 90℃ 150℃ 200℃ 230℃ 110℃ 130℃ 220℃ 240℃ 250℃ 260℃
Dimensions (mm)	13.4D x 2.3T 8.0D x 2.5T 8.0D x 2.6T 8.0D x 3.0T	15W x 21.4L x 2.1T 15W x 21.4L x 1.5T 7.8W x 25L x 1.1T 15W x 24L x 2.1T 15W x 21.4L x 2.45T 15W x 23L x 2.1T
Conductive Layer	Al + Sn	Al + Sn