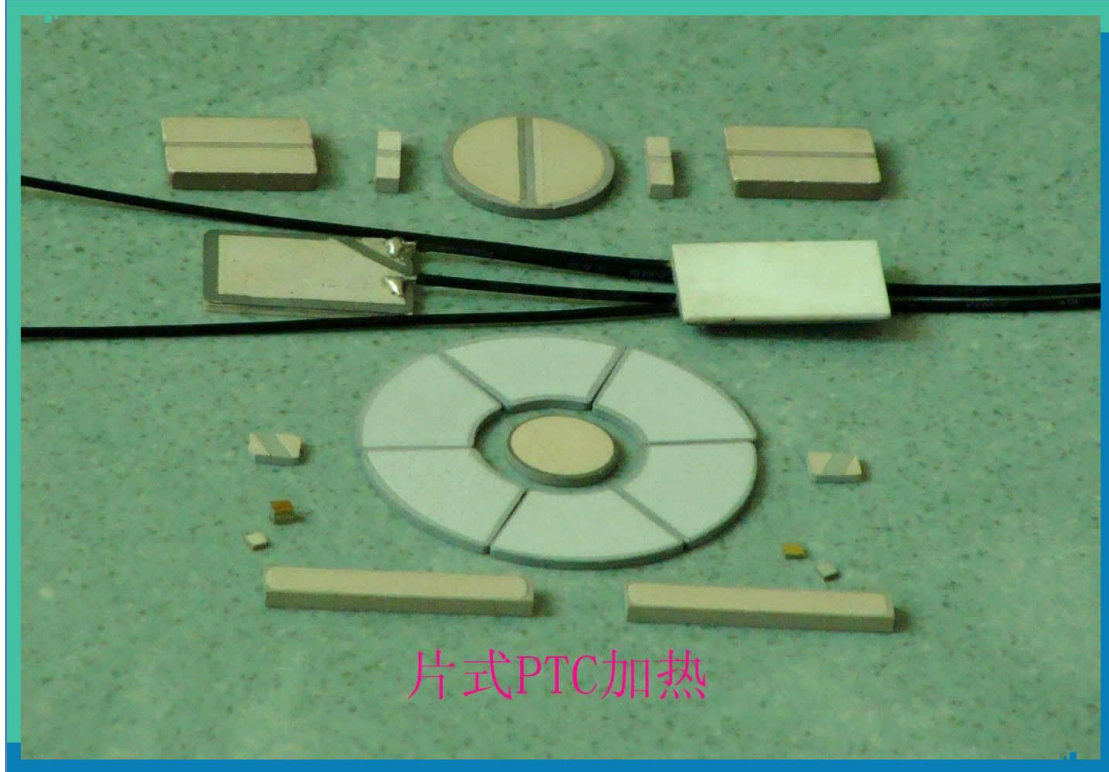




Thermistor PTC Heater Pallet

1. Configuration

There are three types of structures, electric contacts on large sides, electric contacts on one side, used for SMT.



For customer's convenience, we provide assembled heating elements: PTC heating element with insulator and wire, PTC heating element with shell, PTC air heater, PTC for hair straightener, PTC for curler, PTC with resin coating, PTC for water heater, referring to other webpages or contact with our sales.

2. Typical Application

Dryer, air heater, air condition heater, mosquito killer, car's heater, humidifier, de-humidifier, heating-plate, massager, physical therapy machine, hot glue-gun, hair crimper, hair straightener, coffee /milk warmer, water boiler, and so on. PTC is very suitable as a heating element, if the surface temperature on end product was under 260°C.

3. Application Notices

- 1) The surface temperature on PTC can be controlled by itself, so that control circuit and protecting circuit may be omitted in most appliances.
- 2) It can be used for heating liquid, and it's no problem without liquid immersing.
- 3) It can be used for heating air with fan blowing, and it's no problem without blowing.
- 4) There are four electrodes coating to be selected: nickel +silver, melt-jet aluminum, screen print aluminum+silver, screen print zinc +silver.
- 5) Our PTC has very good operating life, 10 years or longer is possible.
- 6) Reliable, over temperature was impossible.
- 7) The surface temperature increases (or decreases) about 8°C, when supplied voltage increases



(or decreases) 2 time. 100V to 240V applied voltage is impossible for same PTC heater

8) If customer requires PTC with wire, insulator, or shell, please select other types manufactured by our company.

9) Parallel connection is necessary for two or more PTC connection.

10) The steady state power may be very different with different applied condition for same PTC. The faster is the heat conduction, the higher is the steady state power.

11) In the most case, the type of two electric contacts on large sides was suitable; but in some appliance, we use other electric contacts.

4. Existed dimensions of PTC pellets.

Size	Length /mm	Width /mm	Thickness /mm	Voltage 100~240V	Size	Length /mm	Width /mm	Thickness /mm	Voltage 100~240V
No.			Voltage 3~24/V		Number			Voltage 3~24/V	
S01	15	9	0.5~2.0	1.8~3.0	S 12	24	15	0.5~2.0	1.8~3.0
S 02	24	6	0.5~2.0	1.8~3.0	S 13	30	6	1.0~2.0	1.8~3.0
S 03	16	10	0.5~2.0	1.8~3.0	S 14	24	16	0.5~2.0	1.8~3.0
S 04	24	8	0.5~2.0	1.8~3.0	S 15	30	10	1.0~2.0	1.8~3.0
S 05	16	11	0.5~2.0	1.8~3.0	S 16	27.6	10.8	0.5~2.0	1.8~3.0
S 06	23.3	13	0.5~2.0	1.8~3.0	S 17	30	13	1.0~2.0	1.8~3.0
S 07	17	13	0.5~2.0	1.8~3.0	S 18	35	6	1.0~2.0	1.8~3.0
S 08	24	13	0.5~2.0	1.8~3.0	S 19	35	10	1.0~2.0	1.8~3.0
S 09	17	14	0.5~2.0	1.8~3.0	S 20	35	9	1.0~2.0	1.8~3.0
S 10	24	10	0.5~2.0	1.8~3.0	S 21	35	13	1.0~2.0	1.8~3.0
S 11	30	5	1.0~2.0	1.8~3.0	S 22	36	13	1.0~2.0	1.8~3.0

Size	Diameter /mm	Thickness /mm	Voltage 100~240V	Size	Diameter /mm	Thickness /mm	Voltage 100~240V
No.		Voltage 6~24/V		Number		Voltage 6~24/V	
R01	5	0.5~2.0	1.8~3.0	R06	13	0.5~2.0	1.8~3.0
R02	6.3	0.5~2.0	1.8~3.0	R07	14.5	0.5~2.0	1.8~3.0
R03	8	0.5~2.0	1.8~3.0	R08	16	0.5~2.0	1.8~3.0
R04	10	0.5~2.0	1.8~3.0	R09	18	1.0~2.0	1.8~3.0
R05	10.8	0.5~2.0	1.8~3.0	R10	20	1.0~2.0	1.8~3.0

Note:

1) The thicker is the thickness, the higher is the withstand voltage and reliable. Select thicker PTC



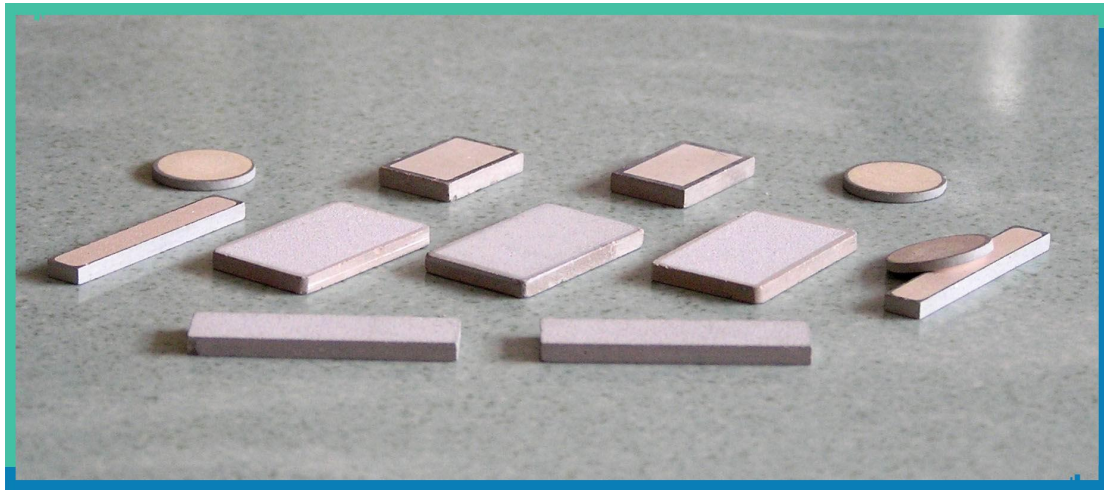
when it is used for very high voltage and high reliable.

2) The large PTC ceramic was easy to crack, so it could not be made too large. Several small PTC can be assembled becoming larger heater, please read other web pages of our company, PTC heater insulated, PTC heater with shell.

3) Customer's special dimensions are possible.

5 Existed Product Specification

5.1 Current products with electric contacts on large sides.



Part No.	Surface	Diameter.	Thickness	Resistance	Rated voltage.
	Temperature. /°C	/mm	/mm	at 25°C/Ω	/V
MZ9-50CD8T3-220VL	50	8	3	500~1500	220
MZ9-75CD13T1-6VL	75	13	1	3~10	6
MZ9-75CD13T1.4-24VL	75	13	1.4	8~20	24
MZ9-75CD13T2.2-220VL	75	13	2.2	500~1500	220
MZ9-110CD9.8T2.5-24VL	110	9.8	2.5	10~25	24
MZ9-130CD8T2.2-220VL	130	8	2.2	500~1500	220
MZ9-155CD13T1.3-24VL	155	13	1.3	50~90	24
MZ9-175CD10.8T2.2-120V L	175	10.8	2.2	150~500	120
MZ9-175CD8T2.2-120VL	175	8	2.2	150~500	120
MZ9-180CD20T1.4-12VL	180	20	1.4	1~5	12
MZ9-180CD8T2.2-220VL	180	8	2.2	500~3000	220
MZ9-230CD13T2.5-220VL	230	13	2.5	800~2K	220

Part No.	Surface	Length	Width	Thickness	Resistance	Rated voltage.
	Temperature. /°C	/mm	/mm	/mm	at 25°C/Ω	/V
MZ9-75CL2W1T0.3-3VL	75	2	1	0.3	80~120	3
MZ9-85CL16W11T2.5-120VL	85	16	11	2.5	300~800	120
MZ9-100CL16W11T2.5-220VL	100	16	11	2.5	600~1500	220
MZ9-110CL23.5W10T2.2-220VL	110	23.5	10	2.2	500~1500	220

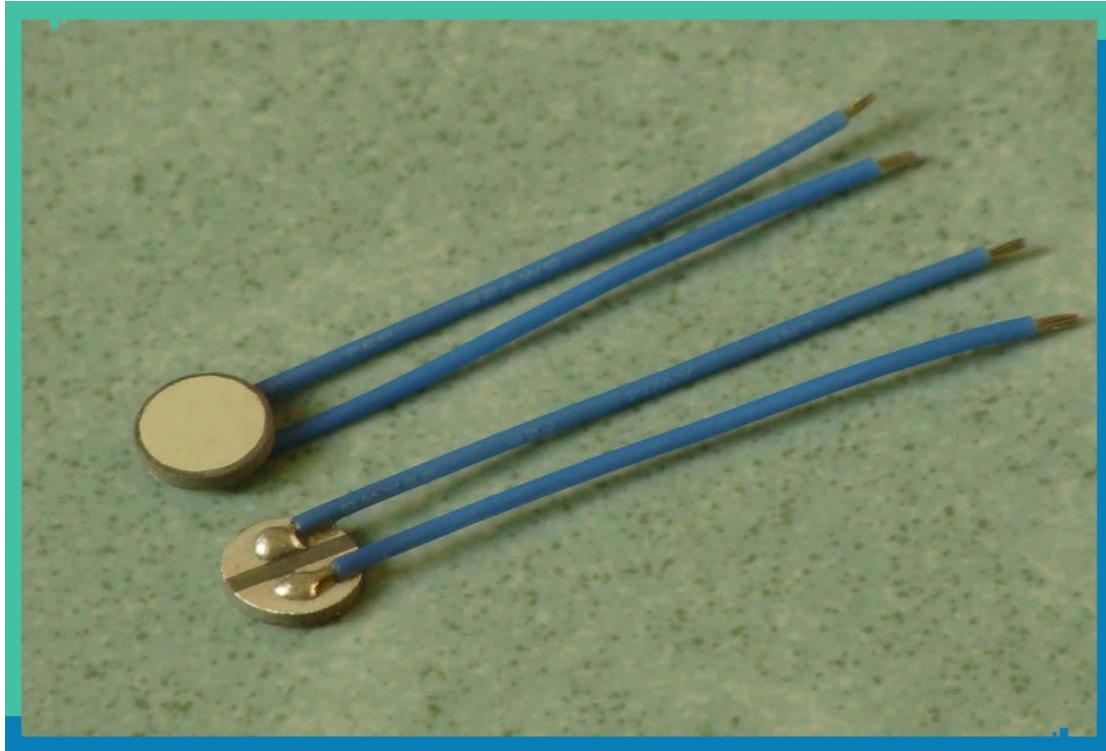


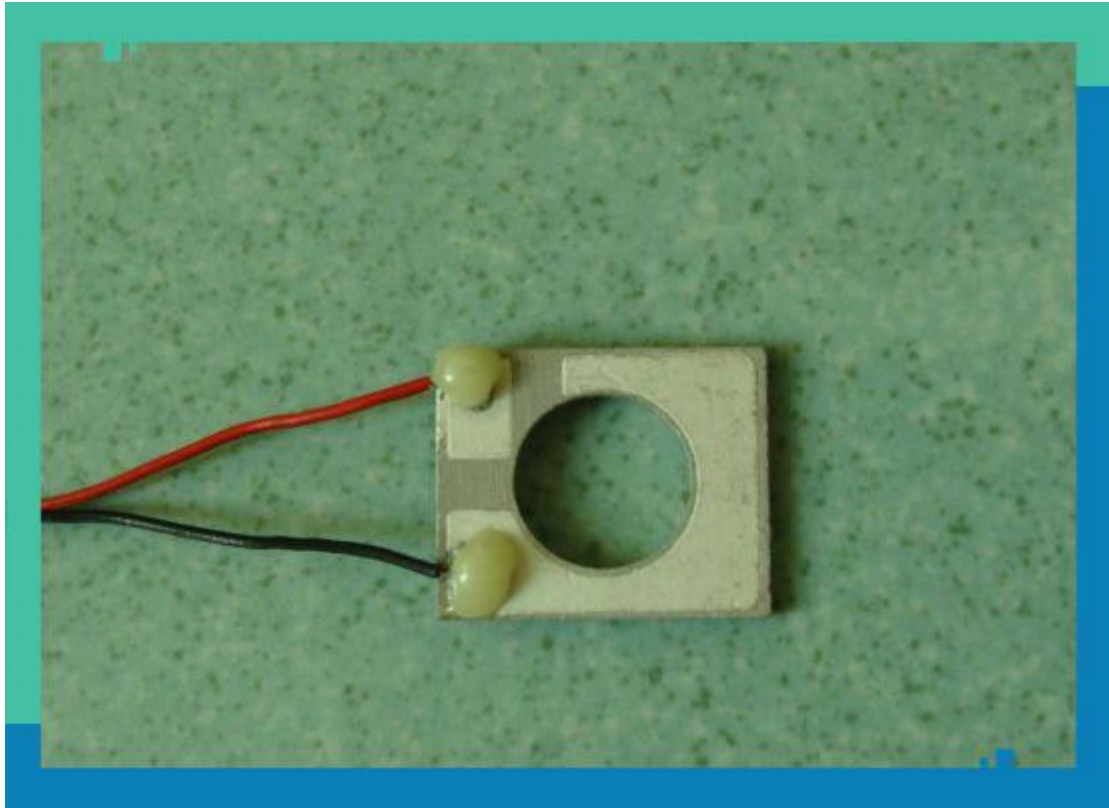
MZ9-155CL5W4T1.6-120VL	155	5	4	1.6	2~6K	120
MZ9-215CL30W5T2.1-24VL	215	30	5	2.1	15~70	24
MZ9-215CL30W5T2.1-220VL	215	30	5	2.1	800~3000	220
MZ9-230CL19W12T2.2-220VL	230	19	12	2.2	800~2K	220
MZ9-250CL23.5W10T2.2-120VL	250	23.5	10	2.2	300~1K	120
MZ9-250CL24W15T1.4-12VL	250	24	15	1.4	3~10	12
MZ9-255CL23.5W10T2.2-220VL	255	23.5	10	2.2	800~2K	220
MZ9-255CL36W6T2.3-220VL	255	36	6	2.3	0.5~3K	220
MZ9-280CL24W15T1.4-240VL	280	24	15	1.4	8~20	24
MZ9-280CL24W15T2.5-120VL	280	24	15	2.5	300~800	120
MZ9-280CL24W15T2.5-220VL	280	24	15	2.5	0.8~3.5K	220
MZ9-280CL24W15T3.5-380VL	280	24	15	3.5	3~8K	380
MZ9-300CL24W15T2.5-220VL	300	24	15	2.5	1.5~4K	220

Note:

- 1) We have too many other pellets not including here in this table. Customer can ask our salesman.
- 2) Applied voltage can be 3V~420V.
- 3) Customer's required products, various voltages, various dimensions, are possible.

5.2 Existed Product with electric contacts on one side.





Part No.	Surface	Diameter	Length	Width	Rated	Thickness	Resistance
	Temperature /°C	/mm	/mm	/mm	Voltage /V	/mm	at 25°C/Ω
MZ9-75CD13T0.6-6VD	75	13			6	0.6	3~10
MZ9-75CL16W11T2.2-220VD	75		16	11	220	2.2	1~3K
MZ9-155CD16T1.3-24VD	155	13			24	1.3	100~200
MZ9-250CL24W15T1.4-12VD	250		24	15	12	1.4	10~30
MZ9-260CL10W2.8T2.1-220VD	260		10	2.8	220	2.1	2~6K
MZ9-280CL24W15T2.2-120VD	280		24	15	120	2.2	0.5~2K
MZ9-280CL24W15T2.5-220VD	280		24	15	220	2.5	2~5K
MZ9-280CL24W15T2.5-380VD	280		24	15	380	2.5	5~15K

Note:

- 1) Utility model patent product, number of patent: ZL 2011 2 0015949. 0., ZL 201220663462.8, ZL 201420061000.8;
- 2) Customer's required products, various voltages, various dimensions, are possible.

5.3 Existed Product with two electric contacts on two small sides.

Part No.	Surface	Length	Width	Thickness	Resistance	Rated Voltage /V
	Temperature /°C	/mm	/mm	/mm	at 25°C/Ω	
MZ9-75CL24W15T1.5-6VC	75	24	15	1.5	2~10	6
MZ9-75CL24W15T1.5-12VC	75	24	15	1.5	10~30	12
MZ9-75CL24W15T1.5-24VC	75	24	15	1.5	20~50	24
MZ9-150CL24W15T1.5-24VC	150	24	15	1.5	20~50	24



MZ9-150CL24W15T2-120VC	150	24	15	2	200~800	120
MZ9-150CL24W15T2.3-220VC	150	24	15	2.3	1~5K	220
MZ9-200CL24W15T2.0-120VC	200	24	15	2	200~800	120
MZ9-200CL24W15T2.3-220VC	200	24	15	2.3	1~5K	220
MZ9-280CL24W15T1.5-24VC	280	24	15	1.5	30~80	24
MZ9-280CL24W15T2.0-120VC	280	24	15	2	1~5K	120
MZ9-280CL24W15T2.3-220VC	280	24	15	2.3	3~15K	220

Note:

- 1) This structure of PTC heating pellet can be soldered on small sides, and don't affect heat conduction;
- 2) It can be used in SMT assembling.
- 3) Customer's required products are possible.
- 4) China national patent: ZL 201420061000.8

6 PTC can be used in these fields below

Prevent frostbite and wet: outdoor preventing frostbite for electric equipment, water pipe, oil pipe, electric circuit.

Drying, humidifying: shoe, clothes, tea hot fan dryer, wardrobe, bookcase, shoebox, moistureproof heater.

Boiling water warming: reservoir water heater, shower bath, liquid heater, water transflux heater, tankless shower water heater, instant water heater, footbath, three phase voltage, multi-voltage heating tube, in-rustant-withstanding, dry-operating heating tube, stainless steel, titanium, 304, 316, heating tube, solar, air energy water heater, solar panel heating tube.

Hairdressing: hair curler, hot comb, hair straightener, wax melter, moulter, hair wave plate.

Agriculture stockbreeding: hatcher, seed budding warmer, tea dryer, warmer for animal, fish, plant.

Car, motor car: Air heater for car, pre-heater for diesel tank, filter, pipe, heater for carburetor, battery pre-heating, heating system for electric car, hybrid energy vehicle.

Warming, health care: warmer for hand, foot, face, waist, warmer with or without fan for bathroom, bedroom, shop, air condition, massager, sauna bath, infrared warmer, radiator warmer with running water, oil, warmer with underground pipe, warmer in bed mattress.

Home appliance: mosquito killer, travel iron, perfume fragrant vaporator.

Machine, tool: electric iron, hot glue gun, heating for sensor, constant temperature heating plate for PCB, photo film coater, plastic bag capper, drying room, binding machine for book, plastic melter, oven, heating for compressed air, railway carriage, plating bath, teflong, 2520, 800 incoloy, heating tube, AC and DC heating, heating with lithium battery, high power heating tube, mini



heating plate.

Food, drink: boiler and wamer for coffee, drink water, tea, wine, milk, soya-bean milk, food, coffee maker and warmer, food roaster, nursing bottle, fermenting case for food, acidophilus milk, drink automatic saler, sugar and chocolate melter.

Vapor: sauna bath, skin vaporator, humidifier, face wetting.

Medical treatment: physical therapy, medical treatment, mainline heater, infrared physical therapy equipment, plant medicament dryer.

Others: temperature switch, delay switch, electronic cigarette.