



SILICONE RUBBER HEATER

シリコンラバーヒーター

There are reasons why many companies, educational and research institutions choose our heaters. It is because we are manufacturer specialized in Silicone rubber heater.

We will assist you in manufacturing from one sheet to mass production. More than 6000 companies as our customers as of 2020.

Flexible

Silicone rubber heater is flexible surface heating element that metal heater does not have.

- This is structured by patterning the resistance wires between two silicone sheets that are calendered on a glass cloth.
- Excellent flexibility and can be perfectly fitted to heating objects such as curved surfaces and cylinders.
- Thin sheet with a standard thickness of 1.5 mm provides excellent thermal response.

Manufacturing from one sheet

We do not require any design or model fee.

- Silicone rubber heaters were developed by NASA in the U.S. around 1965, and are now used in various Japanese industries as precision heater components or equipments.
- Using the special manufacturing method, silicone rubber heaters can be manufactured in a short period of time even for orders from one sheet.

High durability

Silicone rubber heaters can be used at continuous temperatures of 200°C (or 260°C) with a long service life.

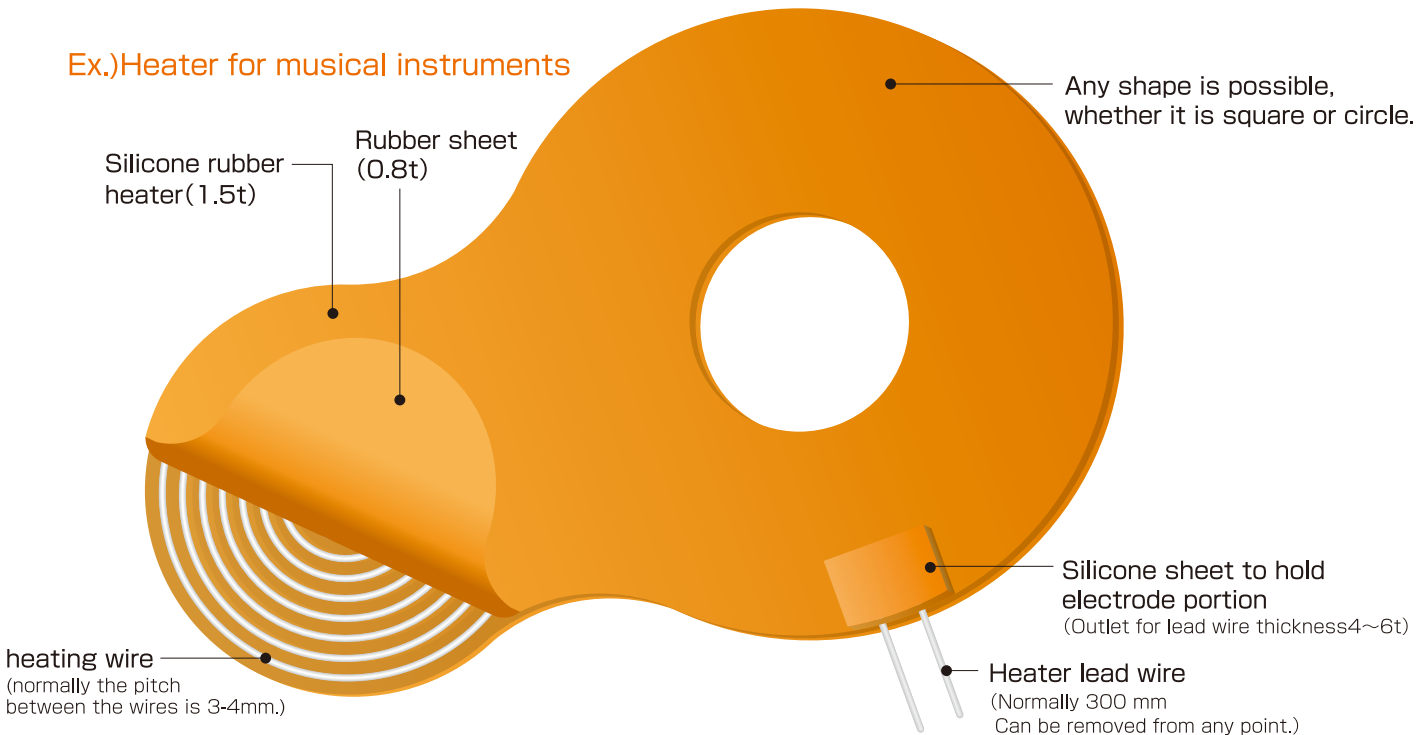
- Silicone rubber heaters have heat-resistant electrical insulation, but do not have the heater's self-temperature control function. Be sure to control the heater temperature when using high power density.
- UL-compliant products are also available.
※ Monoone+ B/W digital temperature controller is recommended.

Free design

Fused with the required technology, it can be manufactured in a free-form design.

- If there are simple illustrations or drawings, we will design according to the shape of heating objects, such as circles, deformed and perforated shapes.
- We can design at various voltages up to 240 voltages.

Ex.) Heater for musical instruments



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This product can be shipped on the same day from urgent purpose to prototype development and mass production.

(Only for domestic order)

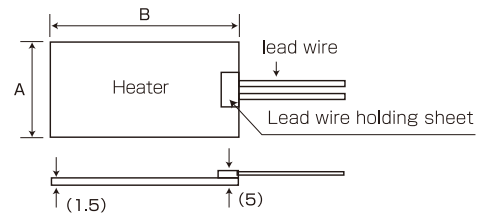
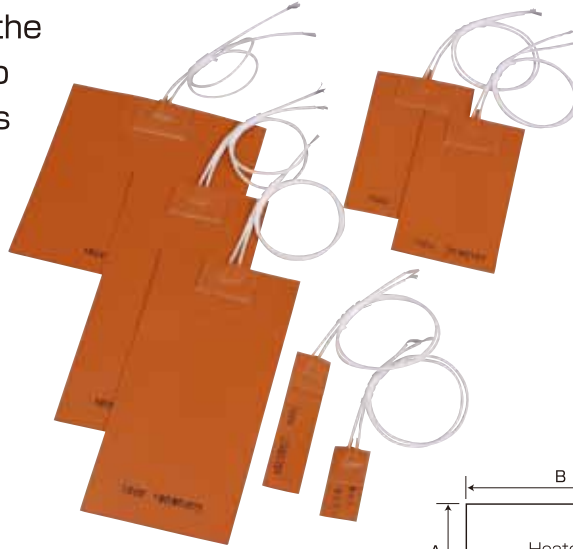
It can be combined with a variety of options.

SR type

Made in Japan

Heat Resistant
200°C/392°F

RoHS2
Compliance



Product Overview

Standard products from 25mm to 300mm width are always in stock, so they will be delivered immediately. (Only for domestic order)

Product Features

It is easy to use. Available with home use 100V power supply so it can be easily tested. Careful finishing and processing by expert staffs and comes with 300mm lead wire. We separately accept mounting and processing, temperature controller, etc.

Cautions

Do not empty heat in a standby mode. Fire risk! It can be the same when there is a gap between the heater and the heater mounting surface. When sandwiching the heater between the metal plate and the heating object, make sure that the lead wire and the lead wire holding sheet do not come into contact with the metal plate. Do not use the product in an atmosphere containing vapors, water, corrosive gases, etc. Do not drill holes in the heater. Do not use if the rubber is damaged. Do not use the heater by bending it. Minimum bend of the heater is R25. (Lead wire holding sheet does not bend very much.) Do not operate the product above the rated voltage. Be sure to turn off the power when disconnecting the heater from the heating object. Do not touch the heater right after the power is turned off. If there is a gap between the heating object and the heater, it shows an abnormal rise in the temperature. Fully care must be taken to fix the heater. Do not apply force to the lead wire holding sheet.

Specifications

With AC100V 300mm lead wire Power density 0.8w/cm² (Refer to the chart for temperature rise on the next page.)

In stock

Product code	Wattage (W)	Size (AxB) (mmxmm)
SR100- 10-25- 50	10	25 x 50
SR100- 12-30- 50	12	30 x 50
SR100- 20-25-100	20	25 x 100
SR100- 25-25-125	25	25 x 125
SR100- 30-25-150	30	25 x 150
SR100- 40-25-200	40	25 x 200
SR100- 50-25-250	50	25 x 250
SR100- 60-25-300	60	25 x 300
SR100- 20-50- 50	20	50 x 50
SR100- 40-50-100	40	50 x 100
SR100- 50-50-125	50	50 x 125
SR100- 60-50-150	60	50 x 150
SR100- 80-50-200	80	50 x 200
SR100-100-50-250	100	50 x 250
SR100-120-50-300	120	50 x 300
SR100- 60-75-100	60	75 x 100
SR100- 75-75-125	75	75 x 125

Product code	Wattage (W)	Size (AxB) (mmxmm)
SR100- 90- 75-150	90	75 x 150
SR100-120- 75-200	120	75 x 200
SR100-150- 75-250	150	75 x 250
SR100-180- 75-300	180	75 x 300
SR100- 80-100-100	80	100 x 100
SR100-100-100-125	100	100 x 125
SR100-120-100-150	120	100 x 150
SR100-160-100-200	160	100 x 200
SR100-200-100-250	200	100 x 250
SR100-240-100-300	240	100 x 300
SR100-125-125-125	125	125 x 125
SR100-150-125-150	150	125 x 150
SR100-200-125-200	200	125 x 200
SR100-250-125-250	250	125 x 250
SR100-300-125-300	300	125 x 300
SR100-180-150-150	180	150 x 150
SR100-240-150-200	240	150 x 200

Product code	Wattage (W)	Size (AxB) (mmxmm)
SR100-300-150-250	300	150 x 250
SR100-360-150-300	360	150 x 300
SR100-320-200-200	320	200 x 200
SR100-400-200-250	400	200 x 250
SR100-480-200-300	480	200 x 300
SR100-500-250-250	500	250 x 250
SR100-600-250-300	600	250 x 300
SR100-720-300-300	720	300 x 300

Temperature control

- Analog type
Suitable for simple temperature control (0 to 100°C variable knob type)
- Digital type
Suitable for more accurate temperature control (0 to 99.9°C variable button type)

Please do not hesitate to contact us for the EXW prices of the products in stock. We can also manufacture from one heater based on a separate estimate for heaters other than the listed dimensions, voltage, power density, wattage, and lead wire length in the table.



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SILICONE RUBBER HEATER

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Silicone rubber heater with double-sided tape and release paper(Semi-custom-made product)

It is a product with a heat resistance 200°C

double-sided tape (with release paper) on a rubber heater.

Heat Resistant
200°C/392°F

RoHS2
Compliance

Additional options

The lead wire of the silicone rubber heater can be extended or the thermocouple type

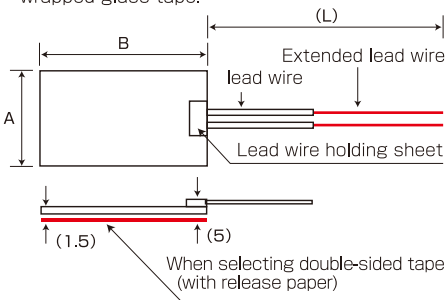
K can be additionally processed.

※The thermocouple is a fluoro-resin-coated TH-8181 series.

When adding lead wire

When adding lead wires, "-L (Length)" is appended to the end of the model number.

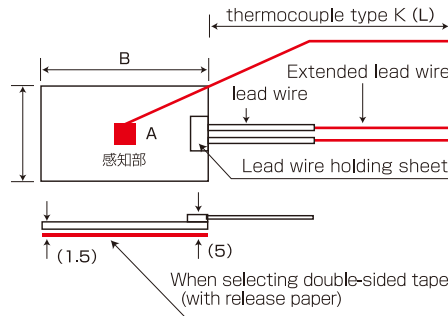
※Extension is done by crimping terminal, and a silicone shrinkable tube is covered on the top of wrapped glass tape.



When adding thermocouple type K

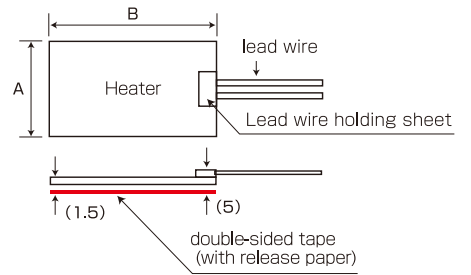
"-K (Length)" is appended to the end of the model number.

※When additional thermocouple processing is performed, the lead wire is also extended.



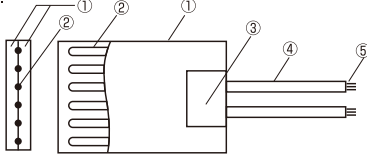
SR type With double-sided tape

"-P" is appended to the end of the model number.



Basic structure

This is a structure that is integrated into a thin sheet by arranging the resistance elements between two silicone rubber sheet, and then compress after removing the internal air.

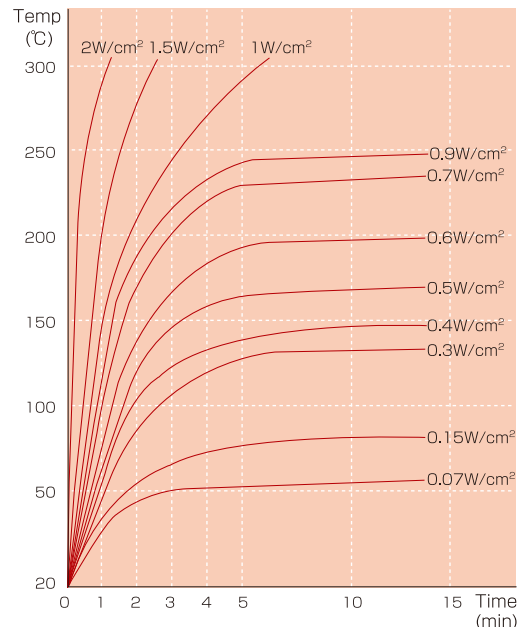


- ①Silicone rubber sheet
- ②Heating wire
- ③Silicone sheet to hold electrode portion
- ④Lead wire
- ⑤Lead tracks

Specifications

- Heat resistance temperature
 - SRtype 200°C continuous
 - Highest operating temperature 230°C
 - HTtype 260°C continuous
 - Highest operating temperature 280°C
- Electrical Characteristics
 - Capacity tolerance ± 10%
 - Withstand voltage AC1500V(per minute)
 - 100MΩ or more / 500VDC
- Insulation resistance
 - Dimensions
 - Max. 450mmx3000mm or 500x700mm
 - Min. 25mmx30mm
 - Standard thickness 1.5mm
 - (Thickness of power input section is 4-6mm.)
- Please contact us if you require UL-compliant product.

Surface temperature in the air



※Measure the heater itself in the air at room temperature. The heater surface temperature changes depending on the operating environment, material and shape of the object to be heated.

Mounting method

- Silicone heat-resistant adhesive 100g tube
 - Apply silicone rubber heater-specific adhesive to the silicone rubber heater and adhere it to the heating objects.
- Double-sided tape processing
 - Apply double-sided tape to the back of the silicone rubber heater and adhere it to the heating objects.
 - (Double-sided tape cannot be adhered by the customer.)
- Baking finish Baking process to integrate is finished at our factory.
- Cylindrical objects, etc.
 - Velcro tape system, SUS, band, hook spring system, snap button system

Power density

It depends on the required temperature, but generally 0.08W /cm2 or below is optimal. (Be aware that temperature control becomes difficult when the power density goes too high.)

Temperature control

- Analog type
 - Suitable for simple temperature control (0 to 100°C variable knob type)
- Digital type
 - Suitable for more accurate temperature control (0 to 999°C variable button type)



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