

# Flexible Heaters

## Silicone Rubber Heaters

### Composite Bonding Applications

Watlow offers silicone rubber heaters commonly used for composite bonding and curing. The design includes equal length circuits and a no-heat tab for temperature uniformity. The contact surface is made using smooth silicone to prevent composite surface imperfections. The heaters are fiberglass reinforced to provide lasting field service durability and life.

### Performance Capabilities

- Watt density up to 5 W/in<sup>2</sup> (0.8 W/cm<sup>2</sup>)
- Voltage of 120VAC/240VAC (option) single phase
- UL<sup>®</sup> recognized

### Features and Benefits

#### Customized leads

- Allows up to 30 feet of lead length

#### Field service ease

- Enables on-site repairs

#### Equal length circuits — min. 2 x 2 in. (51 x 51 mm) tab with radius

- Creates temperature uniformity

#### Smooth contact surface

- Prevents composite surface imperfections

### Typical Applications

- Aerospace industry
  - Repair
  - Fabrication
- Composite bonding processes



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### Wire-Wound Elements – Composite Bonding Applications

#### Composite Heaters “L”

Width		Length		Watts	120VAC	120/240VAC
in.	(mm)	in.	(mm)		Part Number	Part Number
6	(152)	6	(152)	180	<b>L060080C1</b>	
		6	(152)	180		<b>L060080C2</b>
		10	(254)	300	<b>L060120C1</b>	
		10	(254)	300		<b>L060120C2</b>
8	(203)	8	(203)	320	<b>L080100C1</b>	
		8	(203)	320		<b>L080100C2</b>
		12	(305)	480	<b>L080140C1</b>	
		12	(305)	480		<b>L080140C2</b>
10	(254)	10	(254)	500	<b>L100120C1</b>	
		10	(254)	500		<b>L100120C2</b>
		12	(305)	600	<b>L100140C1</b>	
		12	(305)	600		<b>L100140C2</b>
		18	(457)	900	<b>L100200C1**</b>	
		18	(457)	900		<b>L100200C2</b>
12	(305)	12	(305)	720	<b>L120140C1**</b>	
		12	(305)	720		<b>L120140C2</b>
		18	(457)	1080	<b>L120200C1**</b>	
		18	(457)	1080		<b>L120200C2**</b>
24	(610)	24	(610)	1440	<b>L120260C1**</b>	
		24	(610)	1440		<b>L120260C2**</b>
16	(406)	16	(406)	1280	<b>L160180C1**</b>	
		16	(406)	1280		<b>L160180C2**</b>
18	(457)	18	(457)	1620	<b>L180200C1**</b>	
		18	(457)	1620		<b>L180200C2**</b>
20	(508)	20	(508)	2000	<b>L200220C1*</b>	
		20	(508)	2000		<b>L200220C2**</b>

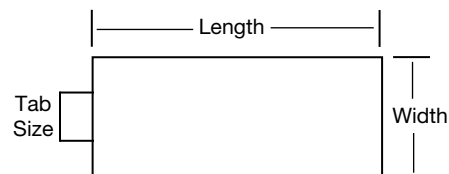
• **M** - Manufacturing lead times

#### Notes:

- Thickness 0.055 in. (1.4 mm)
- Lead length 12 in. (305 mm) UL® 1180 PTFE
- UL® component recognition
- Silicone rubber wire-wound elements rated at 5 W/in<sup>2</sup>
- Length does not include 2 in. (51 mm) tab for leads
- Smooth surface

\* **Thermostat option is not available for this heater.**

\*\* **Only T207 thermostat option is available.**



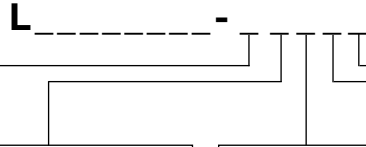
# Flexible Heaters

## Silicone Rubber Heaters

### Etched Foil Elements — Coding Configured Options Composite Heaters “L”

To order, complete the part number with the information below:

#### Composite Flexible Stock Heaters



Modification Options
0 = None
A = PSAS bottom
B = PSAS top
K = PSAS and low loss
L = Low loss
R = 1/16 in. sponge
S = 1/8 in. sponge
T = 1/4 in. sponge
U = 3/8 in. sponge
V = 1/2 in. sponge
W = PSAS + 1/16 in. sponge
Y = PSAS + 1/8 in. sponge
1 = PSAS + 1/4 in. sponge
2 = PSAS + 3/8 in. sponge
3 = PSAS + 1/2 in. sponge

Sensors Type	LOC	WIR
0 = None		
L = T10	STD	STD
M = T10	STD	ALT
N = T10	ALT	STD
P = T10	ALT	ALT
R = T207	STD	STD
S = T207	STD	ALT
T = T207	ALT	STD
U = T207	ALT	ALT
4 = JSTD	STD	STD
6 = JALT	STD	STD
7 = KSTD	STD	ST

- For thermostats, standard location is as shown in catalog; standard wiring is integral or in series with the heater, alternate location is rotated parallel with heater width, alternate wiring is separate leads for pilot control.

- For thermocouples, Type J offering is PFA insulation, Type J alternate is fiberglass insulation, Type K offering is fiberglass insulation.

- Etched foil heaters are not recommended for enclosure heaters.

T10 Set °F*
0 = None
A = 125
B = 150
E = 175
F = 200
G = 225
H = 250
J = 275
K = 300

T207 Set °F*
0 = None
1 = 40/55
2 = 60/75
3 = 95/110
4 = 145/160

T/C Length
0 = None
A = 8 in.
B = 12 in.
E = 18 in.
F = 24 in.
G = 30 in.
H = 36 in.
J = 40 in.
K = 4 ft
L = 5 ft
M = 6 ft
N = 7 ft
P = 8 ft
R = 9 ft
S = 10 ft
T = 12 ft
U = 15 ft
V = 18 ft
W = 20 ft
Y = 22 ft
1 = 25 ft
2 = 30 ft

Lead Insulation
0 = None
1 = 1180 UL®R/C
2 = 1180 C-UL®R/C
3 = 3133 22 Ga.**
6 = 1199 CSA
7 = HPN
8 = 6 ft HPN set
9 = Type E PTFE
A = 1180VDE*
B = 1199VDE*
C = Silicone leads w/waterproof cap
E = SJO cord
F = 6 ft SJO set

\* 1180VDE denotes a cUR® heater plus a VDE stamp.

\*\*Not available on composite heaters due to amperage.

Lead Length*
A = 8 in.
B = 12 in.
E = 18 in.
F = 24 in.
G = 30 in.
H = 36 in.
J = 40 in.
K = 4 ft
L = 5 ft
M = 6 ft
N = 7 ft
P = 8 ft
R = 9 ft
S = 10 ft
T = 12 ft
U = 15 ft
V = 18 ft
W = 20 ft
Y = 22 ft
1 = 25 ft
2 = 30 ft

\* Customer specified length must be noted in inches when ordering.