

SOLDERING INSTRUCTIONS

WARNING !!!

IMPORTANT REMARK:

Our products are heat sensitive products. By overheating the air inside the buzzer, silver migration can occur and solder points can be destroyed.

Depolarisation of the membrane might occur if the internal buzzer temperature exceeds 210 °C.

To avoid damage to our products, the following instructions and recommendations for maximum time and temperature must be respected during soldering:

Wave Soldering.

Typical settings:

Preheat temperature: 100 °C

Solder bath temperature 250 (lead)/265 °C (lead-free alloy).

Wave soldering cycle time: 4 sec. (single wave), 6 sec. (dual wave).

Typical settings: Figure 1.

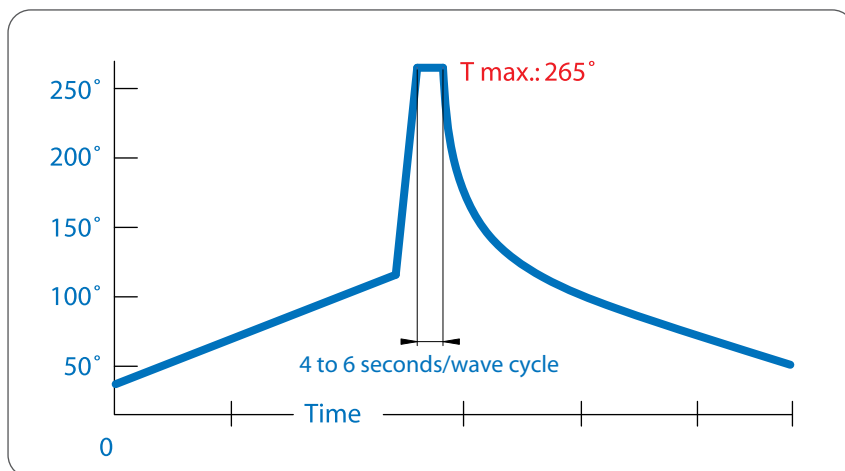


Figure 1.

Vapor Phase Soldering

Sonitron products are not suitable to be used in a vapour phase soldering process

Manual Soldering (soldering by hand)

Typical equipment settings:

-270/350 °C (lead(pb) alloys, e.g. Sn60Pb40). 50w Soldering Iron.

-285/380 °C (Lead-free alloys) e.g., SAC305, or 96SC). 80w Soldering Iron.

Note: Temperatures may vary depending on the equipment used.

Reflow Soldering.

Sonitron SMD buzzers can be used in a Low Temperature surface mount soldering environment with peak reflow soldering conditions below 210°C.

A typical reflow soldering profile is displayed in figure A1.

Note: Settings may vary depending on machine type and materials used.

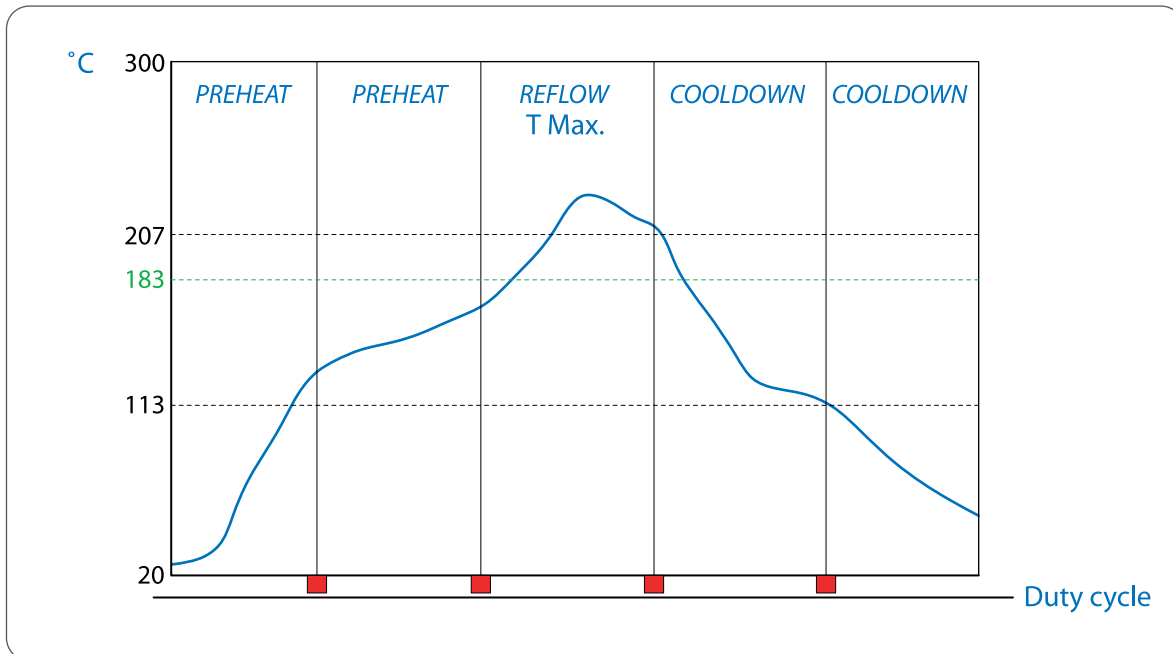


Figure A1

Infrared soldering method:

Maximum temperature of 175°C during 4 minutes or maximum temperature of **210°C during 30 seconds** may not be exceeded.

Remark:

1. All our speaker models can be provided with through hole terminals or flat SMD terminals. The SMD models cannot be soldered in a lead-free soldering process. These components must be soldered manually.
2. Buzzers with through hole terminals can only withstand high temperatures (up to 200 °C environmental temperature) when provided with a heat resistant PPS housing. This has to be explicitly mentioned on the order form.

Lead free solder types:

Wave Soldering: Typical: SAC305 alloy, SN100C

Reflow Soldering: Typical : Alpha CVP-520 (Low Melting Point No-Clean solder paste),
or equivalent

Manual Soldering: Most standard lead-free solder wires are suitable.

Terminal material:

Tinned brass for both pin terminals and SMD terminals.

Recommended solder, and solderpaste suppliers:

Agmet Ltd/ESL-Europe U.K
www.electroscience.com

Balver Zinn Josef Jost GmbH
Germany
www.balverzinn.com

Indium Corporation of Europe
U.K.
www.indium.com

Cobar Europe.
www.cobar.com

Cookson Electronics
www.cookson.be

Kester lead-free
www.kester.com

Felder lottechnik
www.felder.de

Henkel Technologies
www.loctite-europe.com

Koki company ltd
www.ko-ki.co.jp

Useful links:

www.leadfree.org