

SMA-17 + (LC & LT version) Multi-Application buzzer

The Sonitron Multi-Application buzzers are low cost commercial grade components for large volume applications. The SMA series are designed to meet a wide range of current consumption, voltage, sound pressure, mounting methods, connection, dimensions and packing requirements. The buzzers have a built-in oscillator generating their working frequency. They produce a highly reliable audible tone signal, giving either an extremely clear and penetrating tone or a soft sound for non-aggressive signals.



ADVANTAGES & APPLICATIONS

ADVANTAGES :

- octagonal form
- models with different pin pitches
- light but solid state construction
- little power consumption, especially the extra loud LC-versions
- important voltage range (1,5V to 24V)
- easy mountable
- small size for applications with limited space
- SMD models with heat resistant label for protection during automatic soldering, packed in trays for automatic placing

APPLICATIONS :

- portable battery operating devices
- audible alarms
- gas detectors
- weighing and measuring equipment
- medical instrumentation
- timers
- control instrumentation and systems
- copiers
- automobiles
- games and toys
- computer peripherals
- cash registers
- etc.

SPECIFICATIONS

Model	Sound pressure dB(A) *	Frequency (+/- 15%) Hz	Operating voltage	Operating current	Weight
SMA-17	82 dB(A)	3 kHz	1.5 to 24 Vdc	3.3 mA	2 g
SMA-17LT	86 dB(A)	3 kHz	1.5 to 15 Vdc	15 mA	2 g
SMA-17LC	89 dB(A)	3.5 kHz	1.5 to 15 Vdc	0.8 mA	2 g

* All measurements are made in free air at 21°C, at 30 cm, at 12V. Buzzers soldered on a PCB board dimensions 24 cm x 11 cm.

Operating temperature	-20°C to +70°C
Storage temperature	-40°C to +85°C
Life time (at 21°C)	See expected life time curve in addendum
Case material	ABS (UL rating: 94 HB) for pin-versions PPS (UL rating: 94 V0/5V) for SMD-versions
Standard colour of case	Grey

ELECTRICAL PARAMETERS

	Sound pressure level vs. operating voltage	Consumption vs. operating voltage
SMA-17 + (LT + LC Version)	<p>The graph shows Sound pressure level (dB(A)) on the y-axis (65 to 100) and operating voltage (V) on the x-axis (0 to 25). Two curves are shown: LC (top) and LT (bottom). The LC curve starts at approximately 75 dB at 5V and reaches about 93 dB at 15V. The LT curve starts at approximately 70 dB at 5V and reaches about 87 dB at 15V. Both curves level off after 15V.</p>	<p>The graph shows Consumption (mA) on the y-axis (0 to 35) and operating voltage (V) on the x-axis (0 to 25). Two curves are shown: LT (top) and LC (bottom). The LT curve shows a linear increase from approximately 2 mA at 5V to 20 mA at 15V. The LC curve shows a much lower consumption, increasing from approximately 0.5 mA at 5V to 5 mA at 15V.</p>

All measurements are made at 30 cm in free air at 21°C.
 °°: standard versions, respectively SMA-17

DIMENSIONS

SMA 17(LT + LC Version)

Pin version	SMD version
<p>Pin version dimensions: Top view: $17,5 \pm 0,3$ mm diameter, $\varnothing 3$ mm central hole. Side view: $0,6$ mm pin diameter, $8 \pm 0,2$ mm height. Bottom view: $7,5/10$ mm diameter, $\varnothing 0,4$ mm hole.</p>	<p>SMD version dimensions: Side view: $0,25$ mm height, $8,5 \pm 0,2$ mm width. Top view: $1,5 \pm 0,1$ mm thickness, $22,5 \pm 0,5$ mm diameter, $R 0,4$ mm radius. Recommended PCB lay-out: $7,25$ mm width, $23,5$ mm total length, 3 mm spacing.</p>

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PRODUCT CODIFICATION

SMA	17	L	C T	P7.5 P10 S
↓	↓	↓		↓
Sonitron Multi-Application	Square diameter (mm)	L : Loud	C : C-MOS T : Transistor	P : Pin distance (in mm) S : SMD terminals

LIST OF AVAILABLE PRODUCT TYPES

Version	Standard (°)	Loud (L)	Transistor (LT)	Low Current (LC)	Intermittent (I) (*)	Low voltage (LV)
SMA-17 serie	SMA-17 P7.5 SMA-17 P10 SMA-17 S		SMA-17LT P7.5 SMA-17LT P10 SMA-17LT S	SMA-17LC P7.5 SMA-17LC P10 SMA-17LC S		

A heat protection label in capton material is glued on the SMD model of the SMA buzzer. This enables the user to pick up the buzzer by vacuum.

During the re-flow soldering process the heat shield label remains on the buzzer and must be removed after soldering. These heat protection labels are standard for all SMD buzzers.

MODELS ON REQUEST

The SMA series can be delivered, upon special request, with the following protection :

- **Wash tabs**

A wash tab is glued on the sound emitting hole of the buzzer to protect it from water penetrating into the hole of the cavity. The PCB at the back is also sealed with a silicon film. To order this part, please add WASHTAB to the model number of the SMA series.

- **Acryl coating**

For applications in aggressive humid conditions, models containing a membrane with a protective coating are available. The protective coating gives a complementary assurance against smog. Add MC to the model number of the SMA series.