

SMA 21 (LC + LT + LV 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
- 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

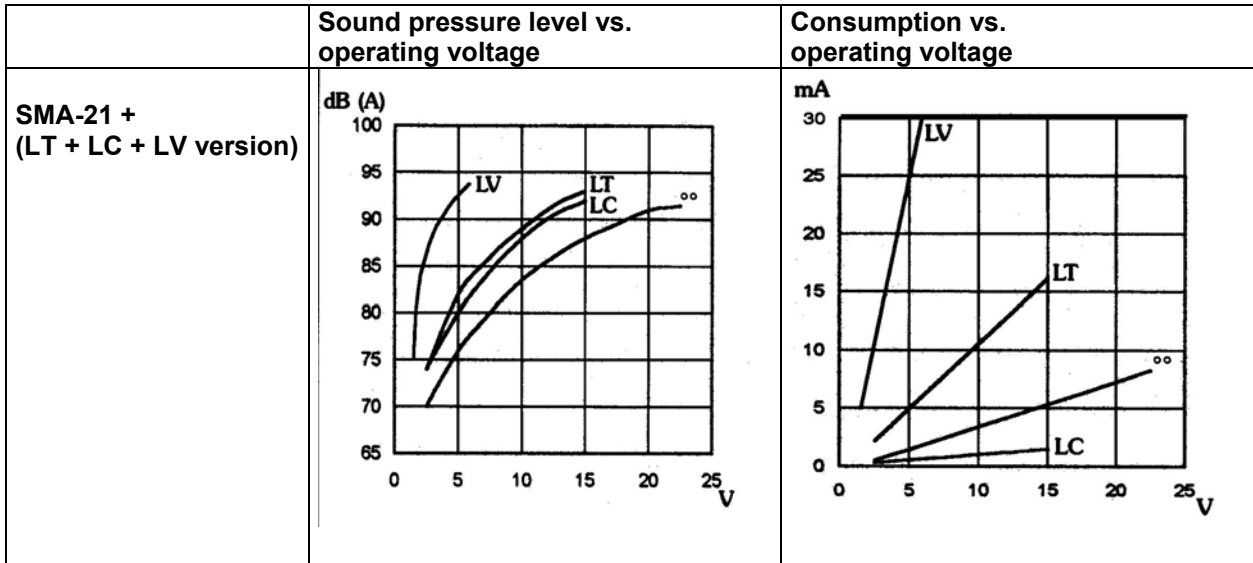
SPECIFICATIONS

Model	Sound pressure dB(A) *	Frequency (+/- 15%) Hz	Operating voltage	Operating current	Weight
SMA-21	85 dB(A)	3.3 kHz	1.5 to 24 Vdc	3.8 mA	2.5 g
SMA-21LT	90 dB(A)	3.3 kHz	1.5 to 15 Vdc	12.5 mA	2.5 g
SMA-21LC	91 dB(A)	3.8 kHz	1.5 to 15 Vdc	1.1 mA	2.5 g
SMA-21LV	87 dB(A) at 3V	3 kHz	2 to 6 Vdc	13 mA at 3V	2.5 g

* All measurements are made in free air at 21°C, at 30 cm, at 12V, except for the SMA-21LV, which is measured at 3V.

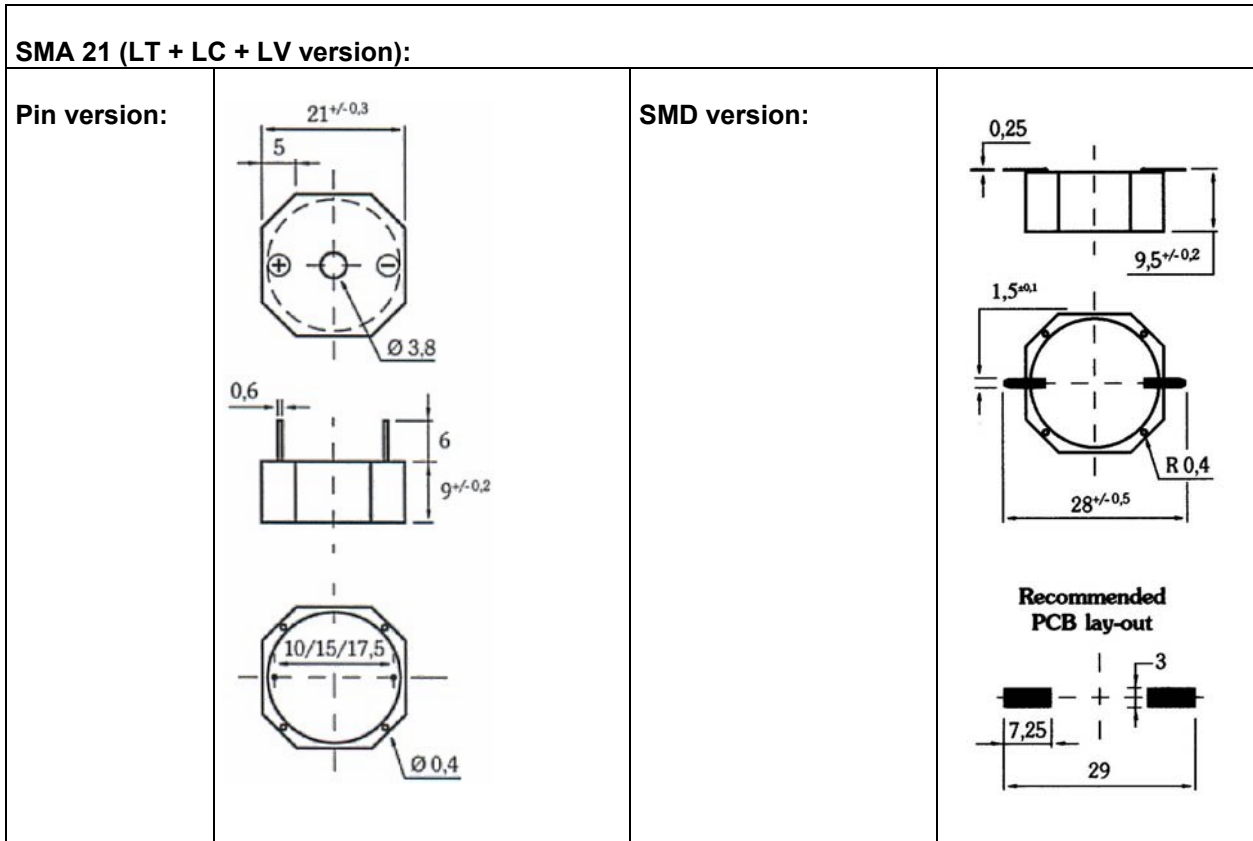
Operating temperature	-20°C to +70°C
Storage temperature	-40°C to +85°C
Life time (at 21°C)	See expected life time curve in addendum
Case material	ABS (UL rating: 94 HB) for pin-versions PPS (UL rating: 94 V0/5V) for SMD-versions
Standard colour of case	Grey

ELECTRICAL PARAMETERS



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

DIMENSIONS (All dimensions are in mm)



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(LC + LT + LV version)
Multi-Application buzzer

PRODUCT CODIFICATION

SMA	21	L LV	C T	P10 P15 P17.5 S
↓	↓	↓	↓	↓
Sonitron Multi-Application	Square diameter (mm)	L : Loud LV : Low voltage	C : C-MOS T : Transistor	P : Pin distance (in mm) S : SMD terminals

LIST OF AVAILABLE PRODUCT TYPES

Version	Standard (°°)	Transistor (LT)	Low Current (LC)	Low voltage (LV)
SMA-21 serie	SMA-21 P10	SMA-21LT P10	SMA-21LC P10	SMA-21LV P10
	SMA-21 P15	SMA-21LT P15	SMA-21LC P15	SMA-21LV P15
	SMA-21 P17.5	SMA-21LT P17.5	SMA-21LC P17.5	
	SMA-21 S	SMA-21LT S	SMA-21LC S	SMA-21LV S

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.