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Component Specification

Product : Speaker
Part Number : CA-SM151540B-0805E
Drawing No : KFC8141

Content

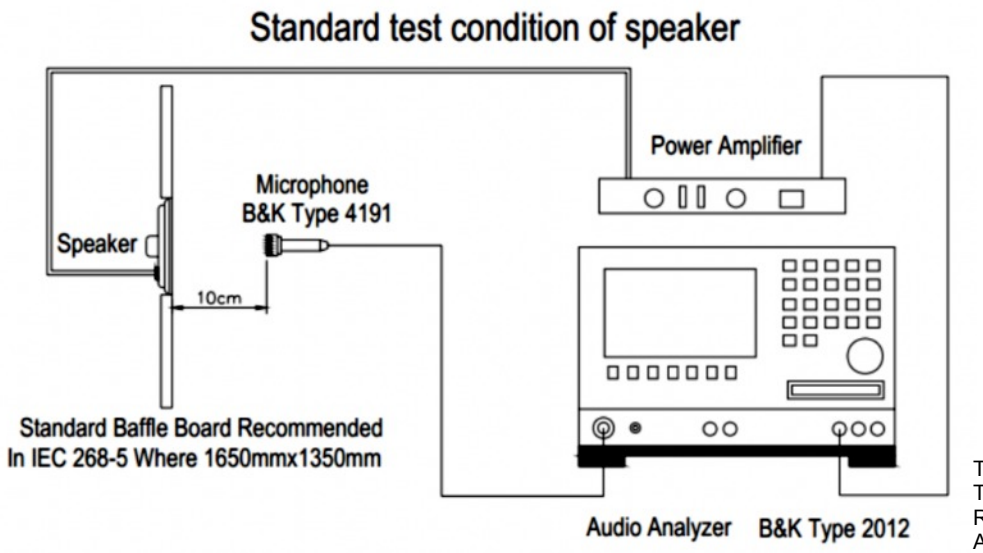
1. General

Speaker highly suitable for industrial applications.

2. Electrical and Acoustic Characteristics

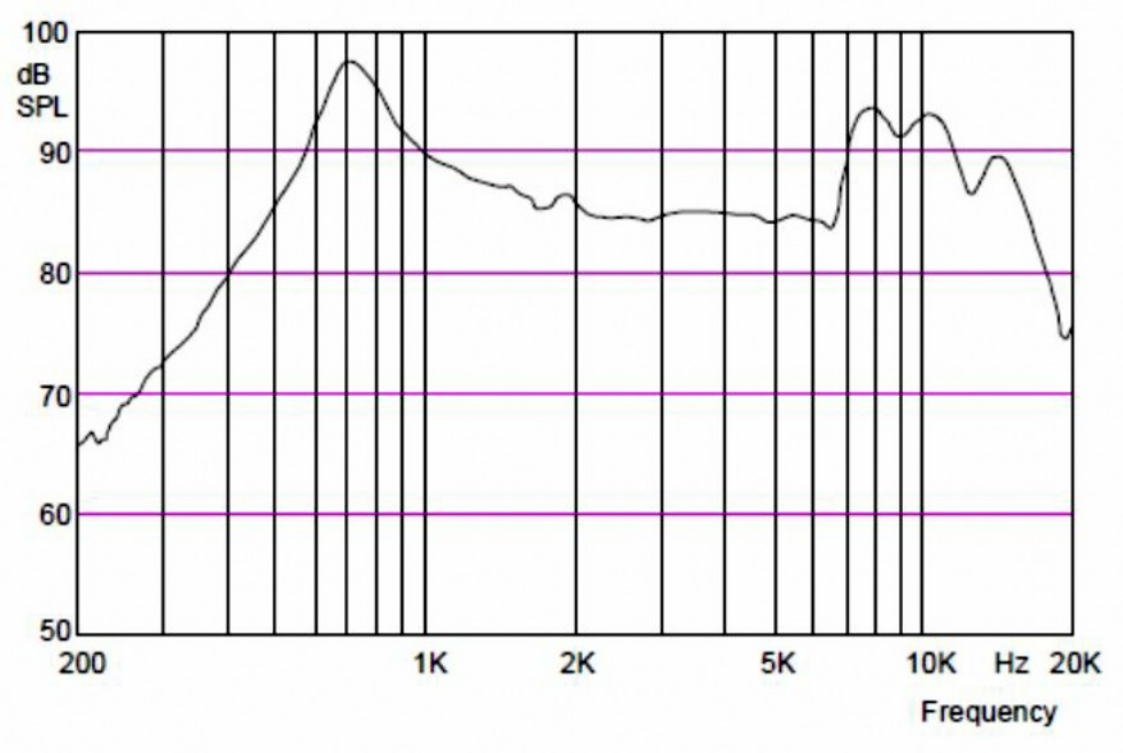
No	**Items**	**Specification**
	Impedance	8Ω±15%(1Vrms at 2KHz)
	Sound Pressure Level	87dB±3dB (0.5W/0.1M at 1.0,1.6, 2.0, 3.2kHz in average)
	Resonance Frequency	850Hz±20%
	Frequency Range	F_0 ~20KHz
	Input Power	Rated 0.5W/Max. 0.8W
	Distortion	<5% Max. at 1kHz/2.0Vrms
	Buzz and Rattle	Should not be audible buzzes, rattles when the 2.0Vrms sine wave signal swept at frequency range.
	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.
	Dimensions	15x15x4 mm
	Weight	1.5g
	Operating Temperature range	-30~+85°C
	Store Temperature range	-40~+105°C

3. Test Circuit



Test Conditions:
Temperature: 15-30 ± 3ºC
Relative humidity: 25% ~ 80%
Atmospheric pressure: 860 to 1060mbar

4. Frequency Response Curve

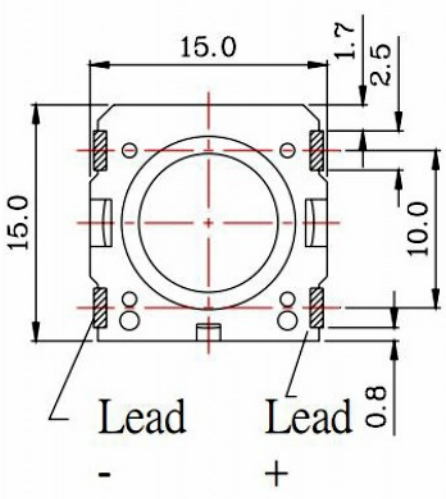


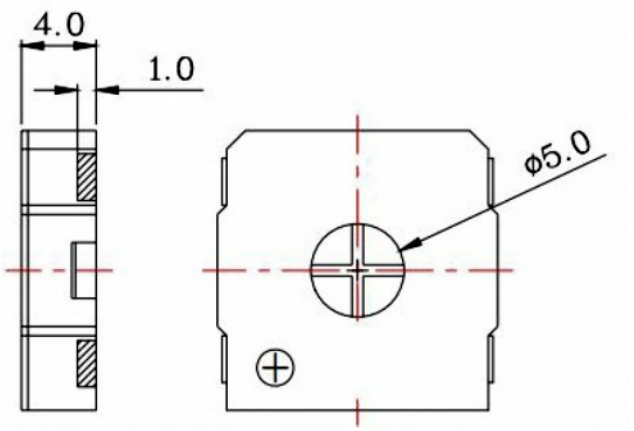
5) Reliability Test

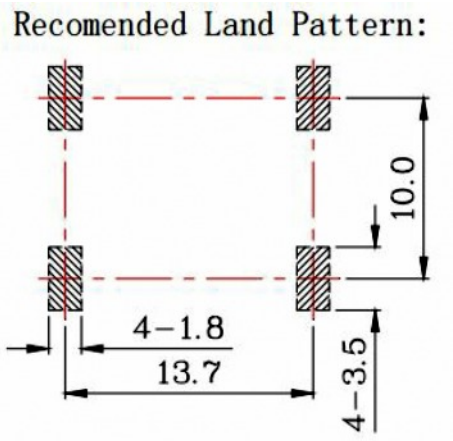
No	Items	Specification
1	High Temperature Test	After being placed in a chamber with +105±3°C for 240 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
2	Low Temperature Test	After being placed in a chamber with -40±3°C for 240 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
3	Humidity Test	After being placed in a chamber with 90 to 95%R.H. at +40±3 for 240 hours and then being placed in natural condition for 3 hour, speaker shall be measured.
4	Thermal Shock Test	Temperature -20°C / +40°C Temperature Change 1± 2 /min Duration at +65°C 2h(each cycle) Duration at -25°C 2h(each cycle) Duration for one cycle 8h Cycles 10 All these tests above should be measured after leaving normal temperature for 2hrs.
5	Vibration Test	10~55~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.
6	Drop Test	Free drop from 100cm height to the concrete floor X,Y, Z 6 direction. 1 times each, total 6 times.
7	Load Test	After being applied loading white noise with input power 0.5W(2Vrms.) for 96 hours, then placed in natural condition for 1 hour, speaker shall be measured.
8	Max Power Test	Max power 1 min. on - 2 min. off 10 cycles.

After test(1~7item), the speaker S.P.L . difference shall be within ±3dB, and the appearance not exist any change to be harmful to normal operation(e.g. cracks,rusts,damages and especially distortion).

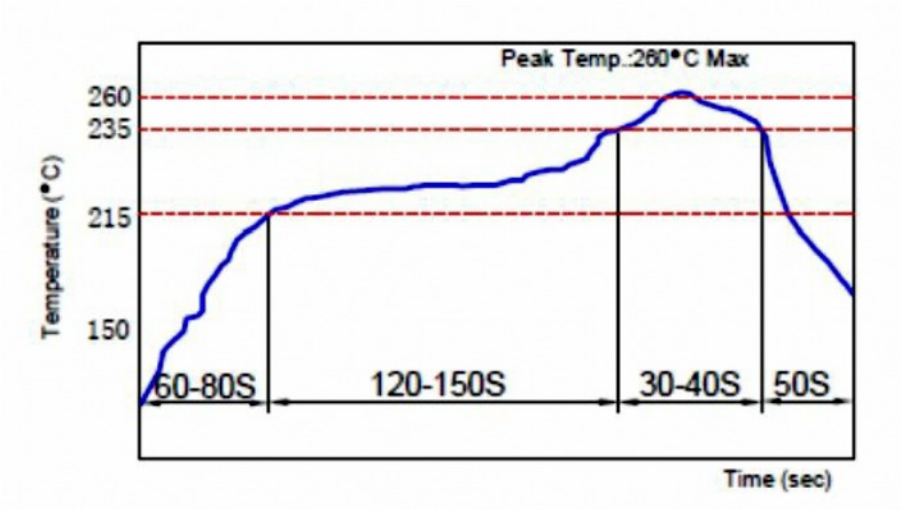
6) Dimension & Structure





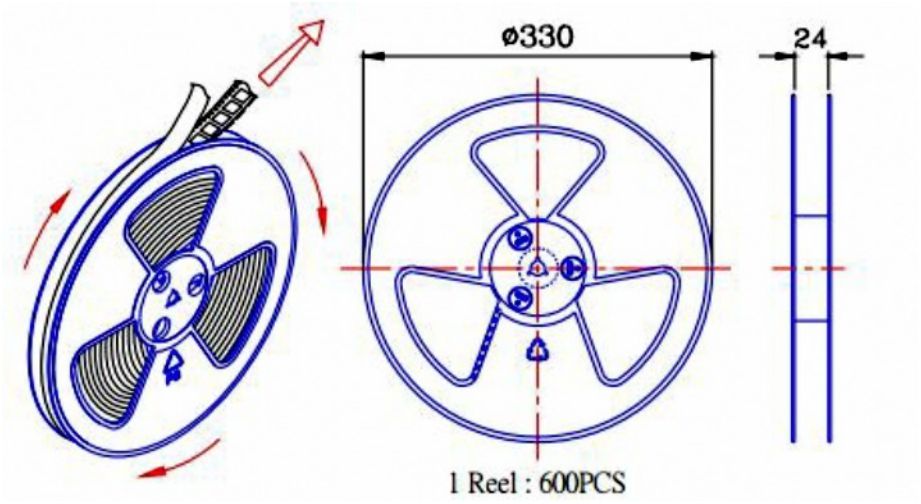


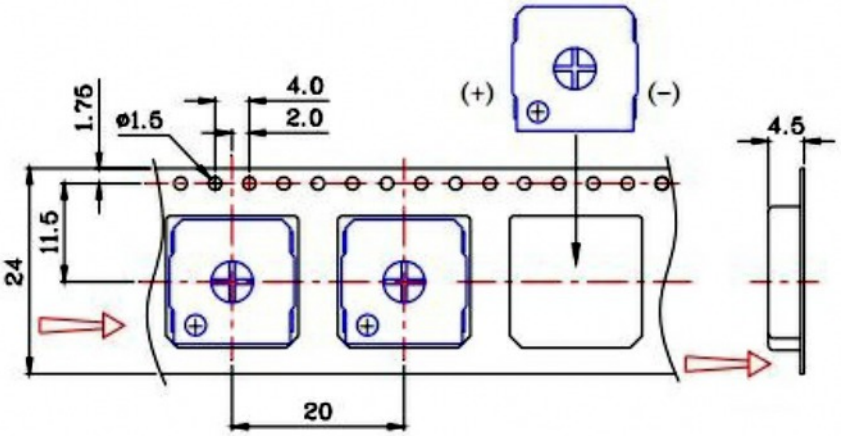
7) Reflow Soldering

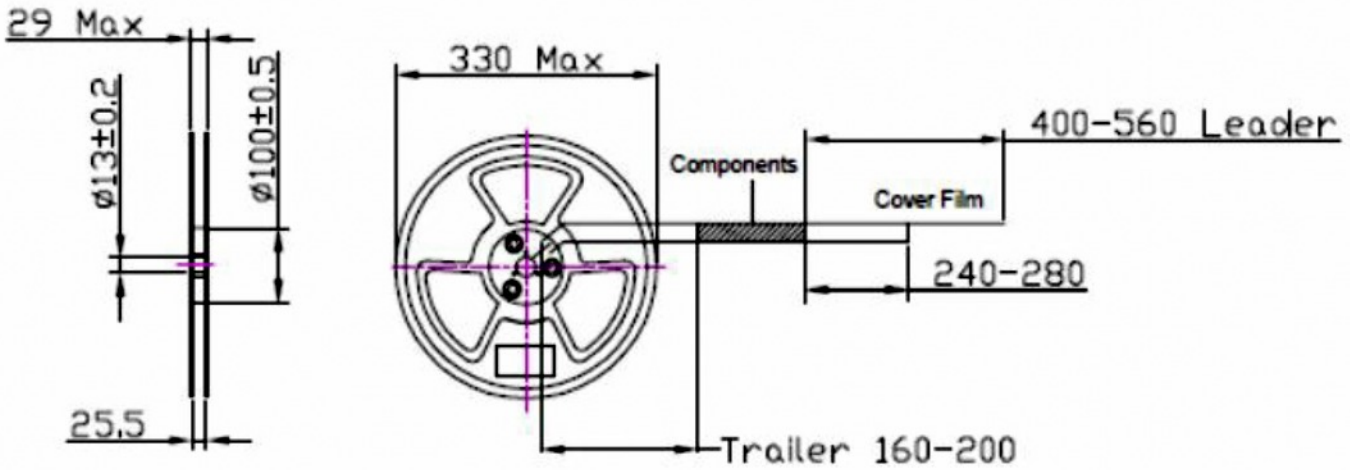


Preheating: 215℃ for 120-150 seconds
Soldering Temperature: 235℃ for 30-40 seconds
Peak Soldering Temperature: 260℃ max for 10 seconds

8) Packing







1 . 0	14/02/16	Preliminary Production	L. Chen	S. Ge	G. Schubert
Revision	Date	Notes	Drawn by	Checked by	Approved by

9) Revision

Rev. No	Date	Page	Description	Sign
1 . 0	14/02/16	all	Preliminary Production	Wang.Xue