

FEATURES

- Surface mounting
- Supply voltage range of 5 V DC to 25 V DC
- 75 dB sound level
- External drive
- Diameter of 10 mm
- Height of 3.1 mm
- Operating temperature range of -20°C to +70°C
- Supply current of 5 mA
- Maximum frequency of 5.2 kHz

RS PRO 75dB, SMD Square Wave External Piezo Buzzer

RS Stock No.: 754-1977



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

These high-quality piezo buzzers from the RS PRO series combine a broad voltage range with low power consumption and a clear sound, all in a space-saving design. They draw a 5 mA supply current and can function between 5 V DC to 25 V DC. This means they use less energy and are compatible with most consumer goods. They emit a 75 dB square-wave tone that's rich and clearly audible. The units themselves are ultra-compact, measuring just 10 mm in diameter – around half the size of a five pence coin. As these buzzers are surface-mounted, installation is straightforward.

General Specifications

Mounting Type	Surface Mount
Sound Level	75dB
Drive Type	Internal
Tone Type	Square Wave
Colour	Black
Housing Material	LCP
Application	Alarms or warning systems, communications equipment and electronic cash registers.

Electrical Specifications

Minimum Supply Voltage	5Vac
Maximum Supply Voltage	25Vac
Maximum Frequency	5.2kHz
Supply Current	5mA

Mechanical Specifications

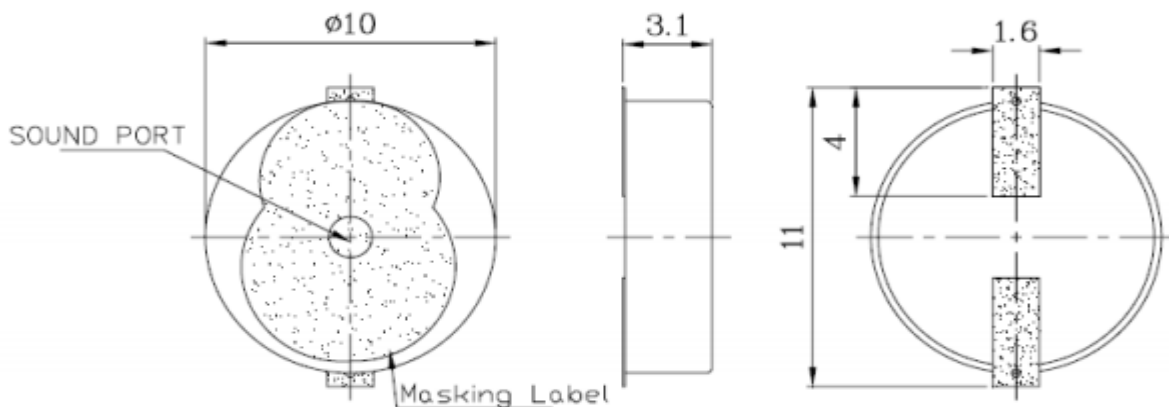
Diameter	10mm
Height	3.1mm
Dimensions	10mm (Dia.) x 3.1mm
Weight	0.3g

Operation Environment Specifications

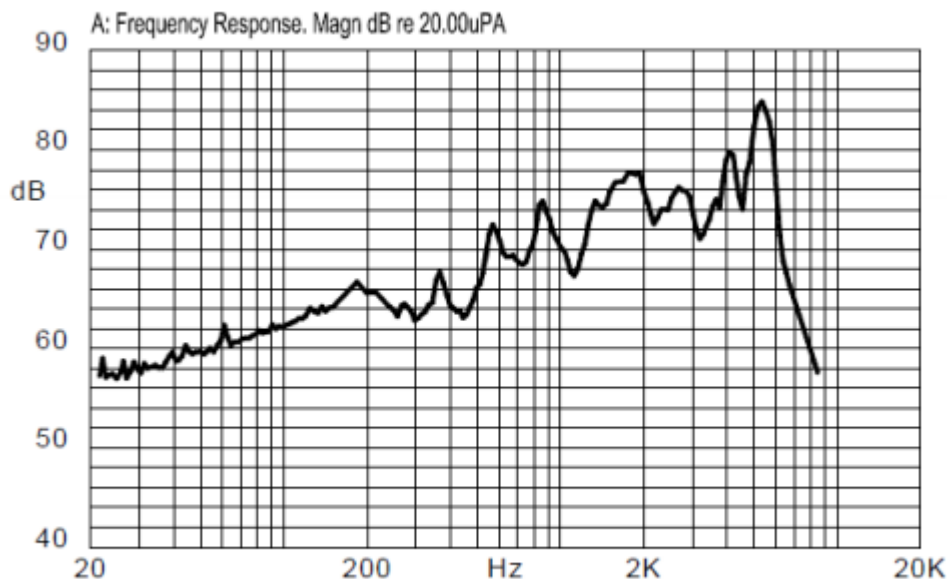
Minimum Operating Temperature	-20°C
Maximum Operating Temperature	70°C

Approvals

Compliance/Certifications	ANSI/ESD S20.20:2014, BS EN 61340-5-1:2007
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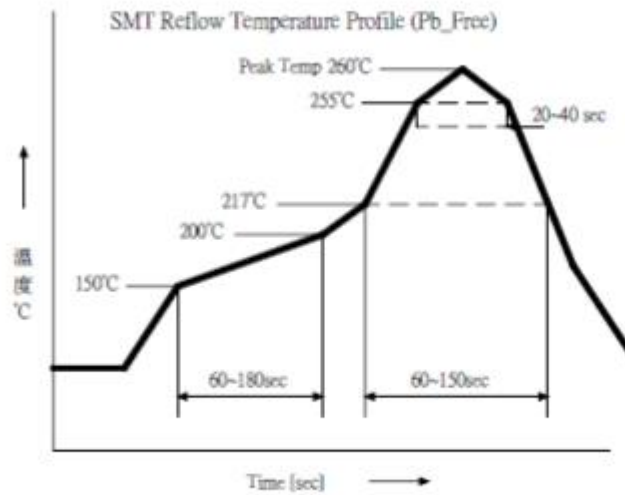


Tol : ± 0.5
Unit: mm



No.	Item	Test condition	Evaluation standard
1	Solderability 焊錫耐著性	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +230 ±5°C for 2 ± 0.5 second. 端子浸松香液中 5 秒後置於錫膏內,錫膏溫度:+230±5°C. 焊接時間: 2±0.5 秒.	95% surface of lead pads must be covered with fresh solder 錫膏須覆蓋端子上方 95%
2	Soldering Heat Resistance 焊錫耐熱性	1)IR reflow 遠紅外線熱風迴焊爐 Pre-heating conditions shall be +140 to +160°C for 60 to 120 seconds. Ascending time up to +150°C shall be longer than 30 seconds. Heating conditions shall be within 10 seconds at +230°C min. But peak temperature shall be lower than +235°C, then being place in natural condition for 1 hour, sounder shall be measured 預熱條件為加熱到+140到+160°C為60到120秒. 加熱到150°C時間須長於30秒. 焊接條件為10秒內最低+230°C, 最高不可超過+235°C. 結束後須靜置於室溫中1小時後進行檢測 2)Soldering Iron 烙鐵 Soldering iron of +270±5°C shall be placed 0.5mm above from electrode of sounder. Melting solder through soldering iron shall be applied to electrode for 3±1 seconds, then being place in natural condition for 4 hours, sounder shall be measured. +270±5°C的烙鐵置於電極上方0.5mm處, 以烙鐵將焊錫熔於電極上 3±1秒,然後置於室溫中4小時後進行檢測.	No interference in operation. 操作無任何不良.
3	Terminal Mechanical Strength 端子強度	The force 10 seconds of 9.8N is applied to each terminal in axial direction. 對每一端子以軸方向, 施9.8N拉力10秒.	No damage and cutting off 端子不鬆動, 不脫落
4	Vibration 振動測試	The part shall be subjected to a vibration cycle of 10Hz to 55Hz in a period of 1 minute. Total peak amplitude shall be 1.55mm. The vibration test shall consist of 2 hours per axis in each three axes (X, Y, Z), Total 6 hours. 振幅1.55mm, 頻率10Hz-55Hz, 時間1分鐘. X,Y,Z 3個方向各2小時, 共6小時.	After the test the part shall meet specifications without any damage in appearance and performance except SPL. The SPL shall be in ±10dB compared with initial one. 經測試後,單體除音壓外,外觀及電氣特性須符合規格.輸出音壓變化量須在±10dB內.

Recommended Temperature Profile For Reflow Oven 建議迴焊爐溫度曲線



No.	Item	Test Condition	Evaluation standard
1	High temp. test 高溫測試	After being placed in a chamber at +80°C for 96hours 置於+80°C環境中 96 小時	
2	Low temp. test 低溫測試	After being placed in a chamber at -30°C for 96 hours 置於-30°C環境中 96 小時	
3	Humidity test 相對濕度測試	After being placed in a chamber at +40°C and 90±5% relative humidity for 2 hours 置於+40°C, 相對濕度 90±5% 環境中 2 小時	
3	Temp. Cycle 溫度循環測試	<p>The part shall be subjected to 5 cycles. 單體承受溫度循環測試 5 次, 其循環內容如圖示.</p> <p>Unit: minute</p>	<p>Being placed for 4 hours at +25°C, buzzer shall be measured. The value of oscillation frequency/ current consumption should be in ±10% compared with initial ones. The SPL should be in ±10dB compared with initial one.</p> <p>經測試後, 靜置於+25°C (室溫) 環境中 4 小時後, 諧振頻率與消耗電流變化量須在±10%內. 輸出音壓變化量須在±10dB內.</p>

No.	Item	Test condition	Evaluation standard
1	Operating life test 壽命測試	1. Continuous life test 高溫壽命測試(連續) 250 hours continuous operation at +70°C with rated voltage applied. 在+70°C環境下,以額定電壓連續操作48小時。 2. Intermittent life test 室溫壽命測試(間歇) A duty cycle of 1 minute on, 1 minutes off, a minimum of 5000 times at room temp.(+25±2°C) and maximum rated voltage applied. 在室溫下(+25±2°C),以最大額定電壓操作,通電1分鐘/斷電1分鐘,測試5000次循環。	Being placed for 4 hours at +25°C, buzzer shall be measured. The value of oscillation frequency/ current consumption should be in ±10% compared with initial ones. The SPL should be in ±10dB compared with initial one. 經測試後,靜置於+25°C(室溫)環境中4小時後,指振頻率與消耗電流變化量須在±10%內。輸出音壓變化量須在±10dB內。

TEST CONDITION.

Standard Test Condition 一般測試條件	:	a) Temperature : +5 ~ +35°C	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
Judgement Test Condition 爭議時測試條件	:	a) 溫度 : +5 ~ +35°C	b) 濕度 : 45-85%	c) 氣壓 : 860-1060mbar
	:	a) Temperature : +25 ± 2°C	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
	:	a) 溫度 : +25 ± 2°C	b) 濕度 : 60-70%	c) 氣壓 : 860-1060mbar

J. Recommended land pattern 建議基板設計尺寸圖

