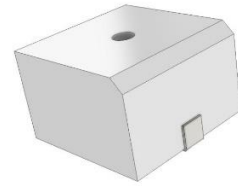




PUIaudio



Data Sheet	SMT-1830-TW-2-R
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Features:

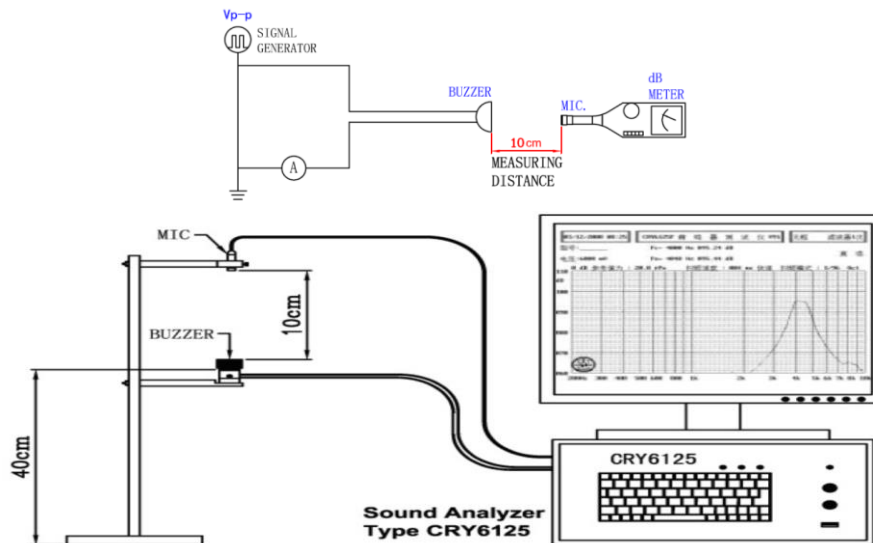
- SMD Piezo Transducer 18mm, 3kHz
- MSL 2a
- Reflow and Washing Allowed

Specifications

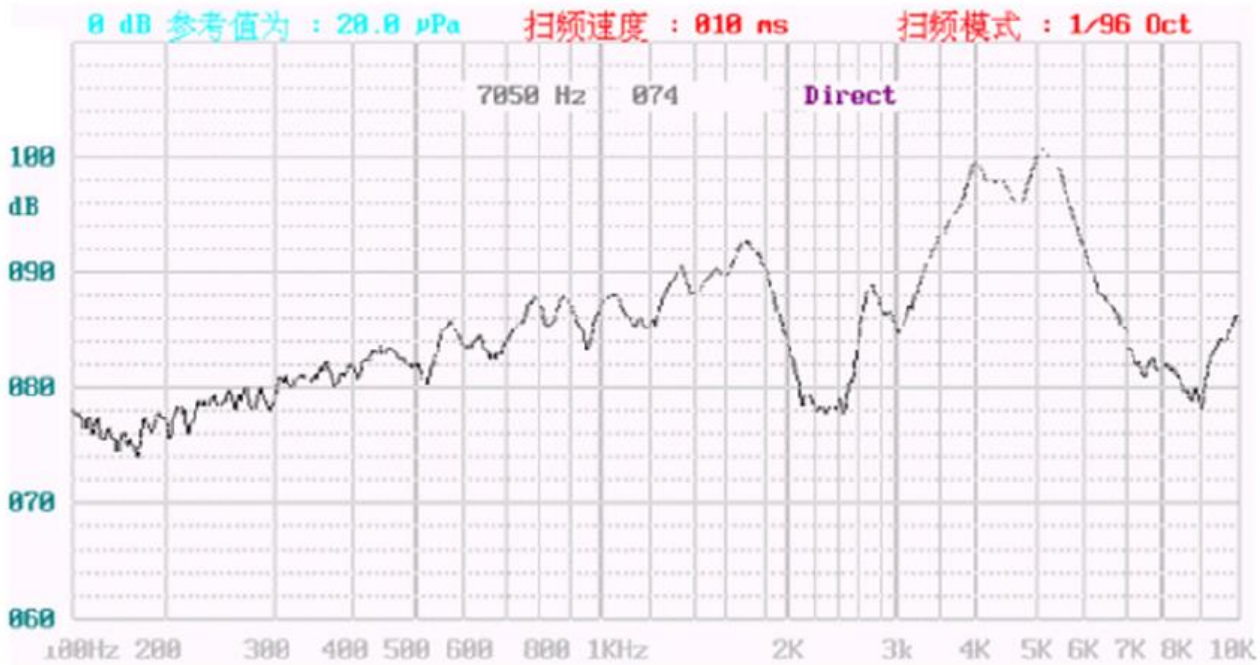
Parameters	Values	Units
Rated Voltage	10	Vp-p
Operating Voltage Range	1 ~ 30	Vp-p
Current Draw at Rated Voltage	7	mA
Capacitance @ 100Hz/1V	20,000 ± 30%	pF
Minimum SPL @ 10cm	86	dB
Resonant Frequency	3,000 ± 500	Hz
Housing Material	LCP	-
Terminal Material	Sn Plated Brass	-
Moisture Sensitivity Level (MSL)	2A	-
Weight	4	Grams
Acceptable Soldering Methods	Hand Solder/Reflow Solder	-
Environmental Compliances	RoHS/REACH	Ex. 7c-1
Storage Temperature	-30 ~ +80	°C
Operating Temperature	-20 ~ +70	°C

Measurement Method (Temperature: 25±2°C; Relative Humidity: 45-65%)

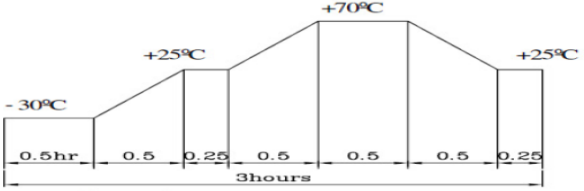
Standard Test Fixture (Distance: 10cm, 10Vp-p, 3000Hz square wave)



Typical Frequency Response

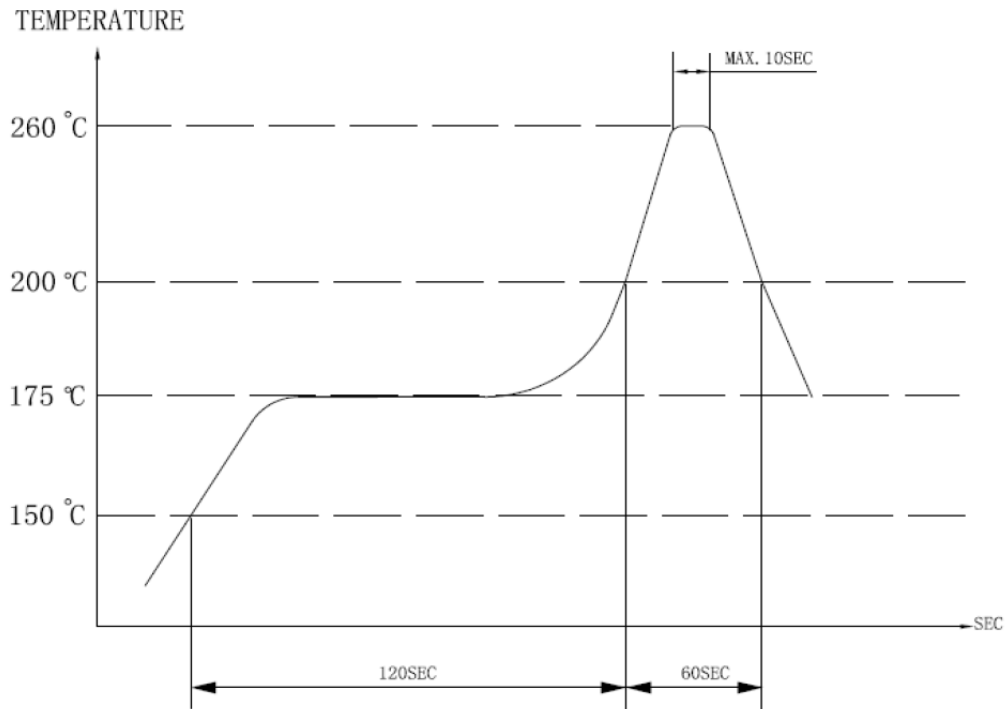


Reliability Testing

Type of Test	Test Specifications
High Temperature Test	96 hours at +80°C±2°C then rest at room temperature for 2 hours without applying power
Low Temperature Test	96 hours at -30°C±2°C then rest at room temperature for 2 hours without applying power
Humidity Test	96 hours at +40°C±2°C with relative humidity at 90-95% then rest at room temperature for 2 hours without applying power
Temperature Cycle Testing	 <p>Test for 5 cycles without applying power, then expose to room temperature for 2 hours</p>
Vibration Test	Apply vibration amplitude of 1.5mm with 10-55Hz band frequency in X,Y,Z directions for 2 hours each (6 hours total)
Drop Test	Drop a piece from a height of 75cm to the surface of a 4cm thick board, drop any direction, 6 times.

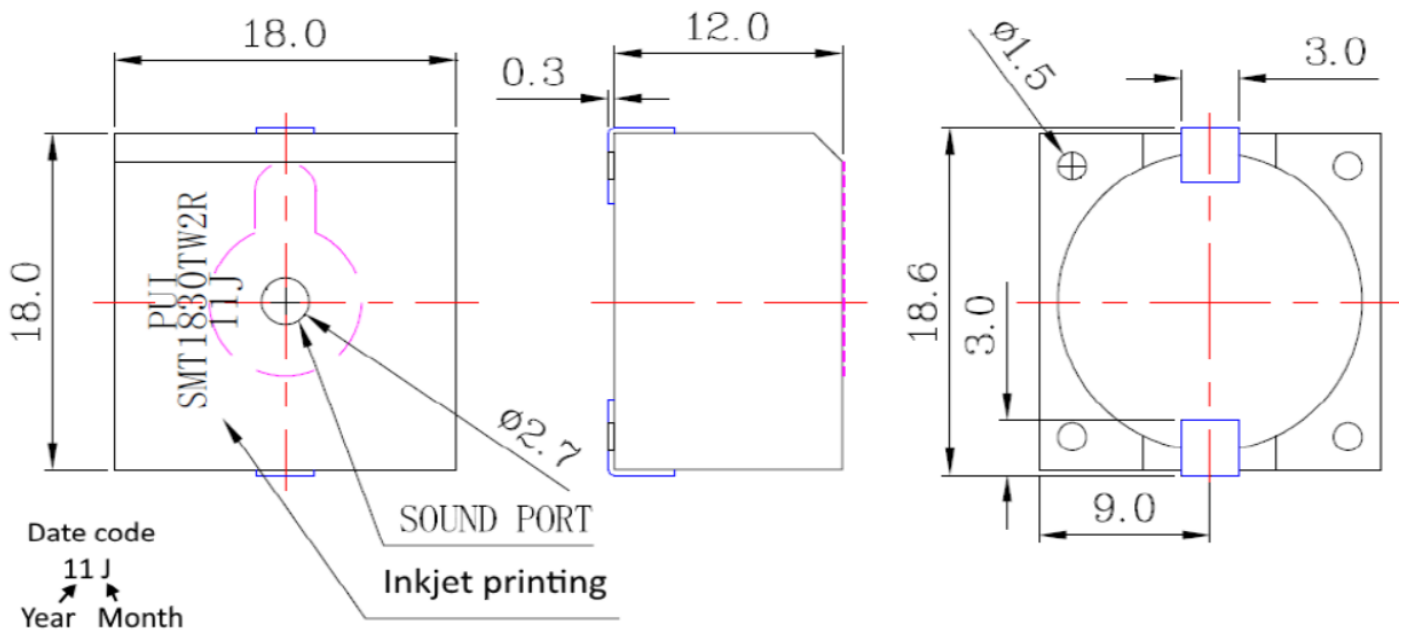
After these tests, the piece should test within ± 10dB of the original SPL

Reflow Profile

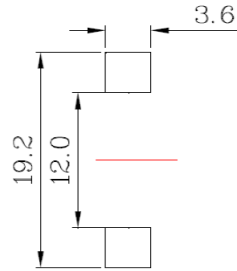


***Manual Solder Iron temperature 350°C and solder time 2-3 seconds per terminal.**

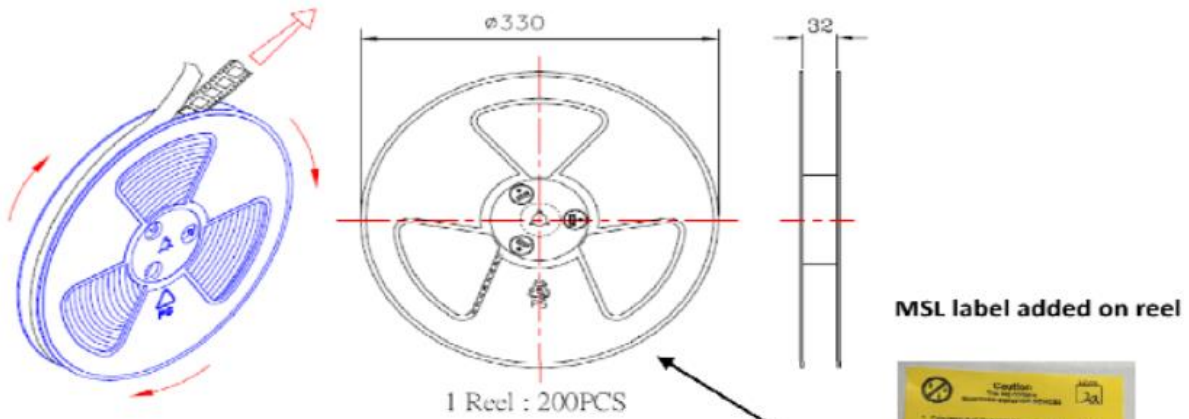
Dimensions (Tolerance ± 0.5mm unless specified)



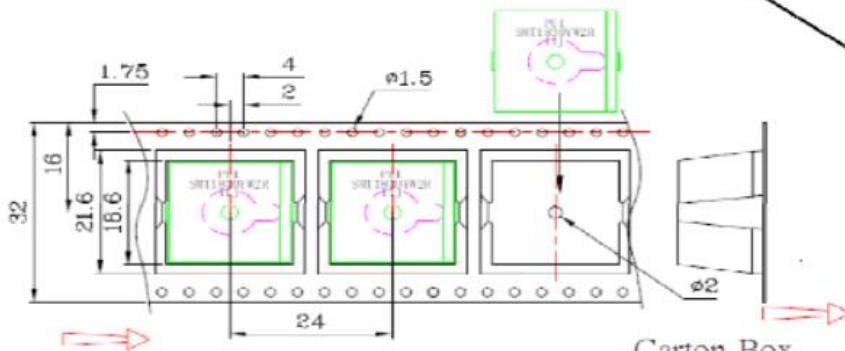
Recommended Land Pattern



Packaging

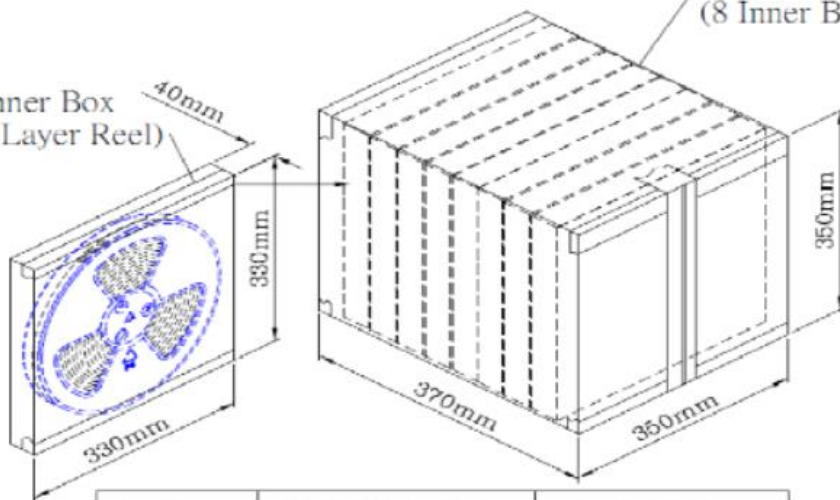


MSL label added on reel



Carton Box
(8 Inner Box)

Inner Box
(1 Layer Reel)



Inner Box	330mmx330mmx40mm	1x200PCS=200PCS
Carton Box	350mmx350mmx370mm	8x200PCS=1600PCS

Specification Revisions

Revision	Description	Date	Approved
-	RELEASED FROM ENGINEERING	11/11/2011	-
A	Revised Height Dimension	02/01/2012	-
B	Add Details for MSL 2a, Packaging Details, Land Pattern	03/14/2024	ML

Note:

1. Unless otherwise specified:
 - A. All dimensions are in millimeters.
 - B. Default tolerances are $\pm 0.5\text{mm}$ and angles are $\pm 3^\circ$.
2. Specifications subject to change or withdrawal without notice.