



Data Sheet

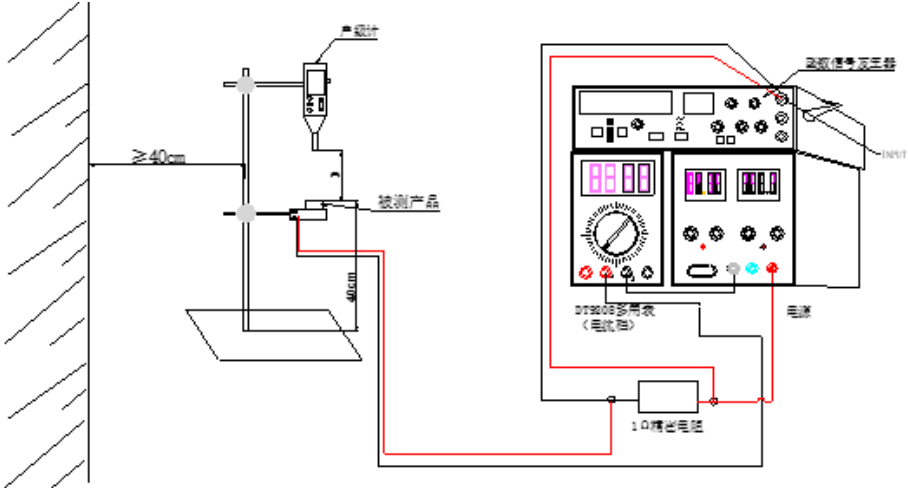
SMI-1324-TW-12V-R-T/R

- Features:**
- 12Vdc Electro-Mechanical SMD Indicator
 - 2400Hz Resonant Frequency
 - Reflow and Wash Allowed
 - Tape and Reel

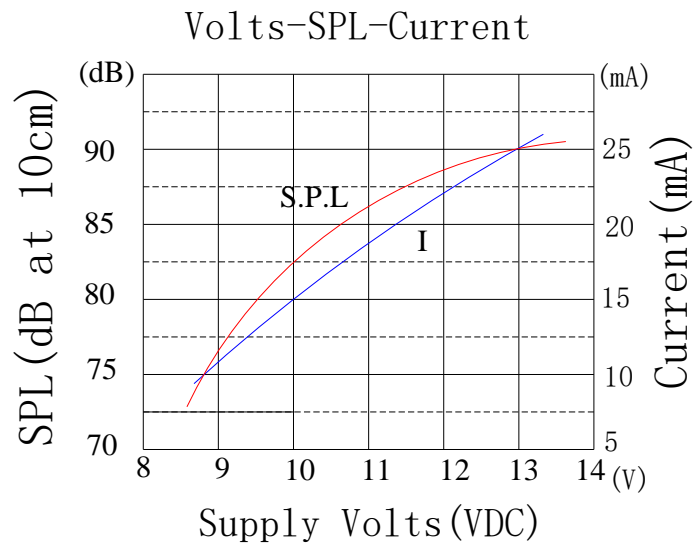
Specifications

Parameters	Values	Units
Rated Voltage	12	VDC
Operating Voltage Range	8 - 15	VDC
Current Draw at Rated Voltage	30	mA
Minimum SPL @ 10cm	85	dBA
Resonant Frequency	2400 ± 300	Hz
Tone or Pulse Rate	Continuous Tone	-
Housing Material	PA46	-
Terminal Material	Sn plated Brass	-
Weight	5	Grams
Acceptable Soldering Methods	Hand Solder, Reflow Solder	See following pages for soldering information
Environmental Compliances	ROHS/REACH	-
Moisture Sensitivity Level (MSL)	Level 2A	-
Storage Temperature	-40 to 85	°C
Operating Temperature	-40 to 85	°C

Measurement Method (12Vdc, 10cm)



SPL vs Voltage Curve

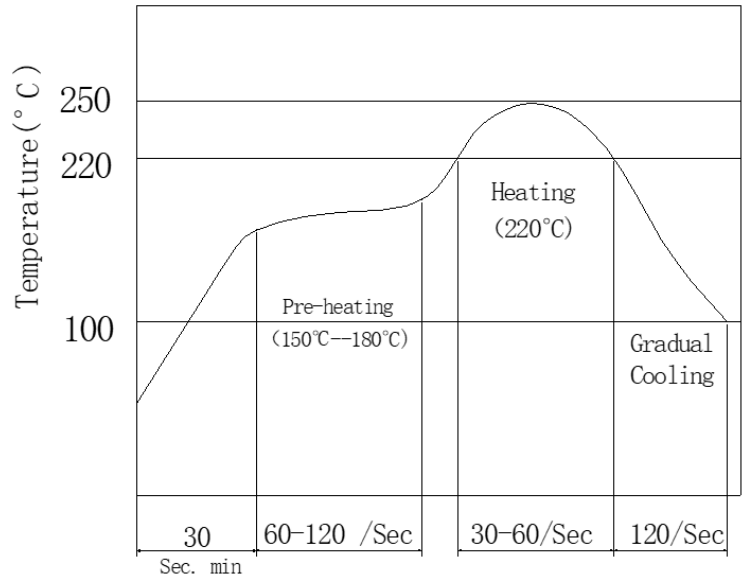


Reliability Testing

Type of Test	Test Specifications
Storage High Temperature Test	Storage in +85°C ± 2°C test box for 96 hours, then expose to the room temperature for 2 hours without applying power.
Storage Low Temperature Test	Storage in -40°C ± 2°C test box for 96 hours, then expose to the room temperature for 2 hours without applying power
Humidity Test	Storage in +40°C ± 2°C 90-95%RH test box for 96 hours, then expose to the room temperature for 2 hours without applying power.
Temperature Cycle Testing	<div><div><div><div><div>+85°C</div><div>+20°C</div><div>+20°C</div><div>+20°C</div></div><div><div>-40°C</div><div>+20°C</div><div>+85°C</div><div>+20°C</div></div></div><div><div>30min</div><div>15min</div><div>30min</div><div>15min</div></div></div></div> <p>Make this test for 5 cycles without applying power, then expose to the room temperature for 2 hours.</p>
Vibration Test	<div><div><div><div>9.3g</div><div>0.3g</div></div><div><div>10</div><div>55 Hz</div></div></div><div><div>Amplitude:1.5mm</div><div>Time :1min/axis</div></div></div> <p>Make this test for the directions of X,Y, Z for 2 hours each (total 6 hours).</p>
Drop Test	Free drop a unit from the height 100cm to the surface of 10mm thick board ,three directions(X,Y,Z).
Solderability Test	Soldering temp.:260 ± 5°C Heat applying time: 3 ± 0.5sec.

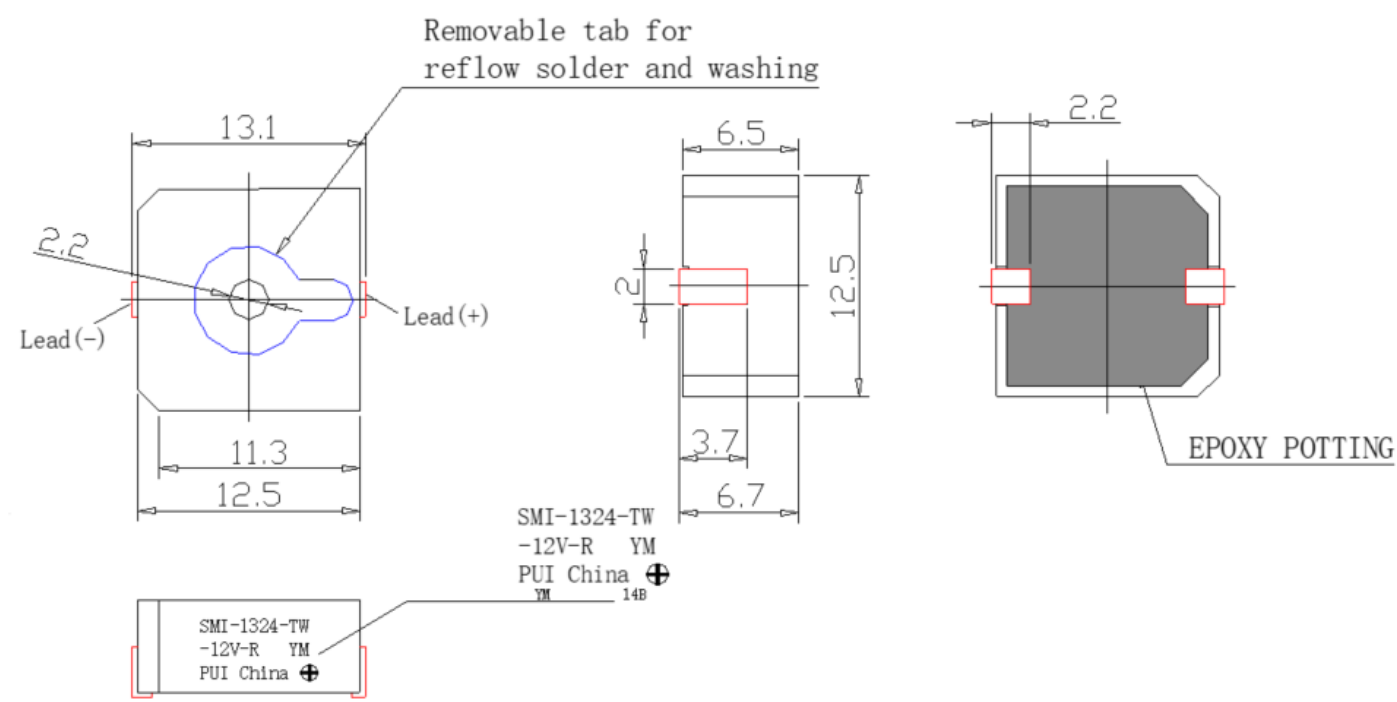
After tests, SPL shall be within ± 5dB

Recommended Reflow Profile

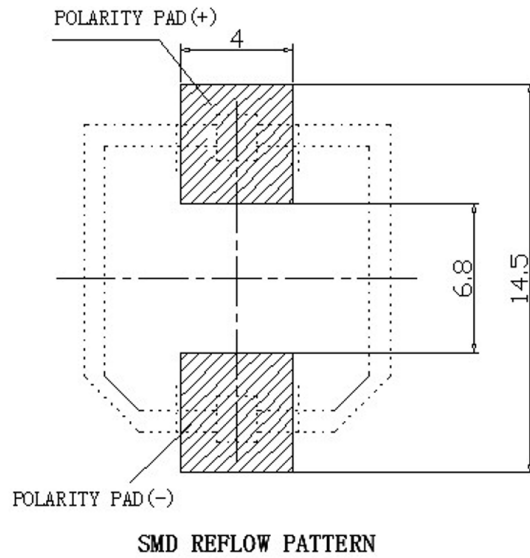


***Manual Solder - Iron Temp 360C, Solder Time 3 seconds or less.**

Dimensions

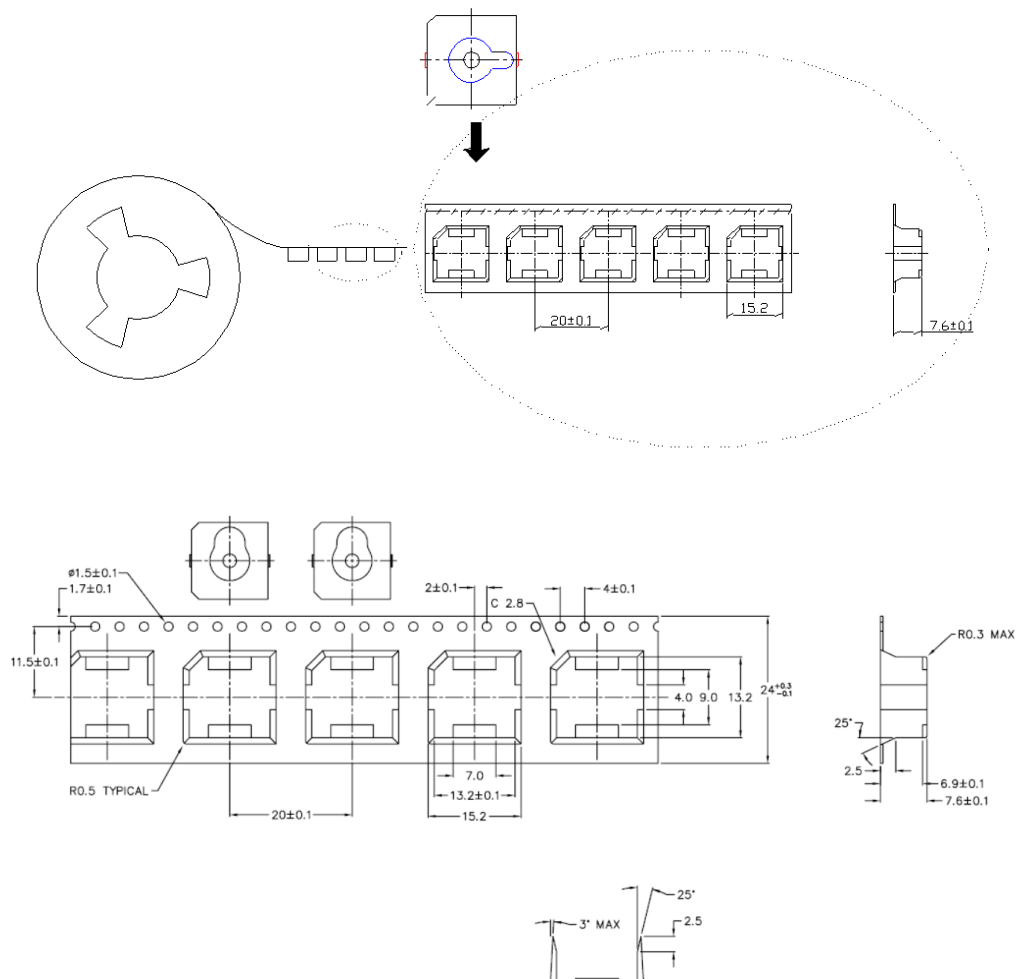


Recommended Land Pattern

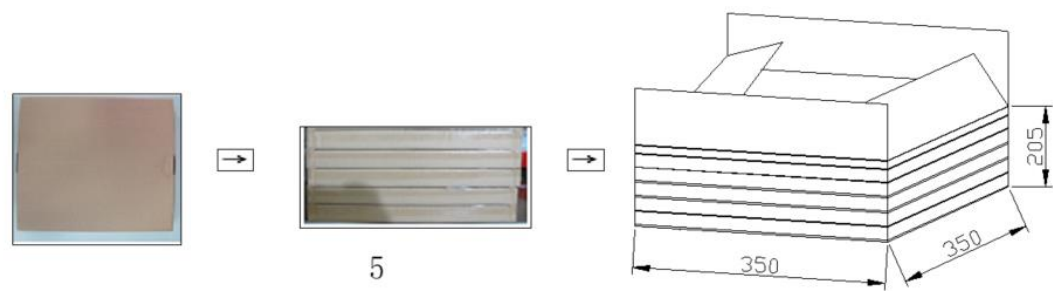


Packaging

350pcs per reel



1750 pcs master carton



Specifications Revisions			
Revision	Description	Date	Approved
-	Released from Engineering	10/13/2004	-
A	Updated Housing Material	04/19/2005	RW
B	Added ROHS Compliance	08/10/2005	-
C	Added Note 4	11/02/2005	BR
D	Revised Terminal Material	03/20/2006	BR
E	Revised to Inventor 3D Template	05/28/2010	BR
F	Revised Storage Temperature	02/27/2020	MV
G	Update Spec Format, Add details for Reliability, Packaging, Reflow etc., Revised Operating Temperature, Add MSL 2A, Remove note 3 and 4.	01/24/2025	ML

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