

Data Sheet

SMT-0727-S-R

Features:

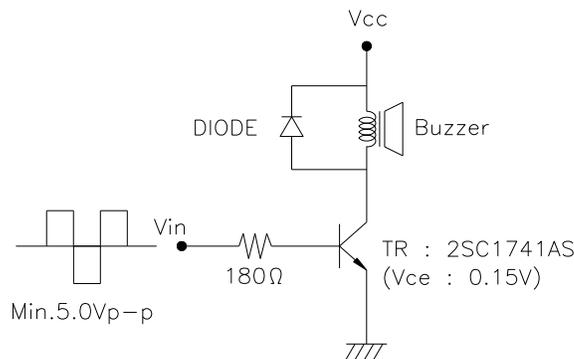
- 7.5x7.5mm SMT magnetic transducer
- 3.6V0-pk, 2.7kHz

Specifications

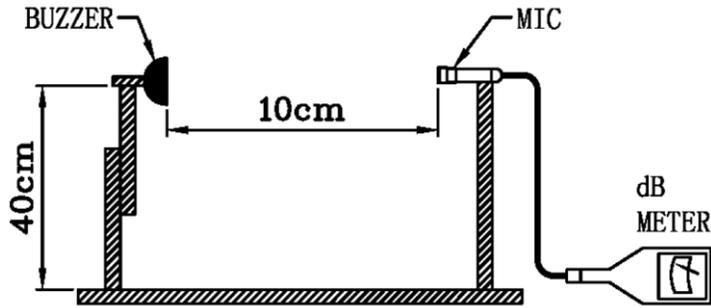
Parameters	Values	Units
Rated Voltage	3.6	V0-pk
Operating Voltage Range	2 ~ 5	V0-pk
Current Draw at Rated Voltage*	120 (Max.)	mA
Coil Resistance	12 ± 2	Ohms
Minimum SPL @ 10cm*	85	dBa
Resonant Frequency	2,700 ± 500	Hz
Housing Material	LCP	-
Terminal Material	Tin-Plated Phosphor Bronze	-
Weight	0.33	Grams
Acceptable Soldering Methods	See following pages for details	-
Environmental Compliances	RoHS/REACH	-
Moisture Sensitivity Level (MSL)	2	-
Operating Temperature	-30 ~ +70	°C
Storage Temperature	-40 ~ +85	°C

*At rated voltage with 50% duty cycle 2.7kHz positive biased square-wave

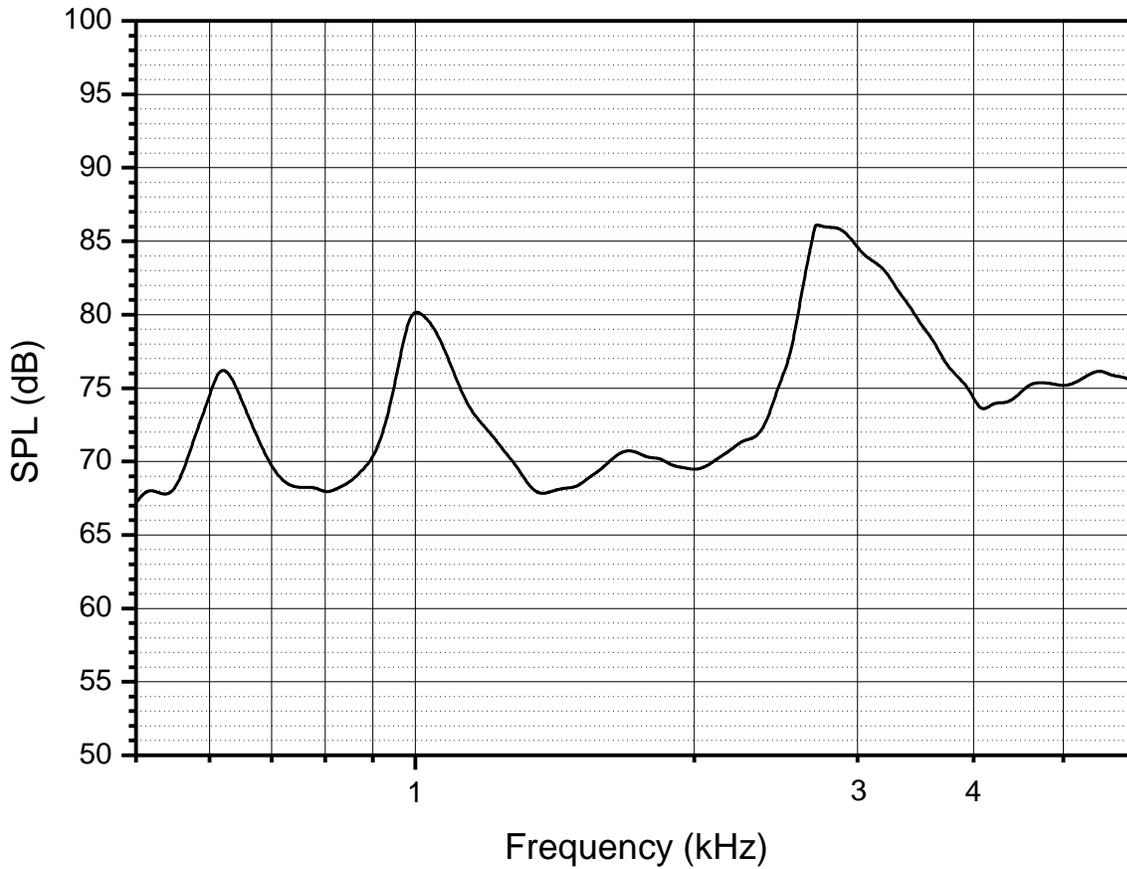
Recommended Drive Circuit (Transistor should have a $V_{ce} \leq 0.15V$ and $h_{FE} \geq 200$)



Test Condition



Typical Frequency Response (3.6Vpk square wave sweep, measured at 10cm)

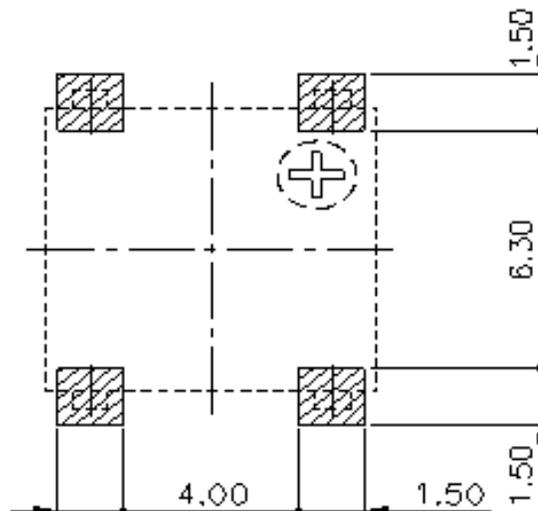


Reliability Testing

Type of Test	Test Specifications
High Temperature Test	The part shall be capable of withstanding a temperature +85°C for 96 hours.
Low Temperature Test	The part shall be capable of withstanding a temperature -40°C for 96 hours
Humidity Test	Place in chamber with 90-95%RH at 40C for 96 hours followed by ambient room conditions for 2 hours.
Temperature Cycle Testing	<p>Total 5 cycles of the following without power.</p> <p>1 cycle : 90 min</p>
Vibration Test	<p>Test for direction of X, Y, Z for 2 hours each (6hrs total).</p>
Drop Test	Drop onto 4cm hardwood board in x,y,z direction (6 times) from 75cm height.
Solderability	Solder bath temp 300°C ± 5°C, time 3 ± 1 sec

After each test, part shall meet specifications with an SPL variance of ±10dB

Recommended Land Pattern

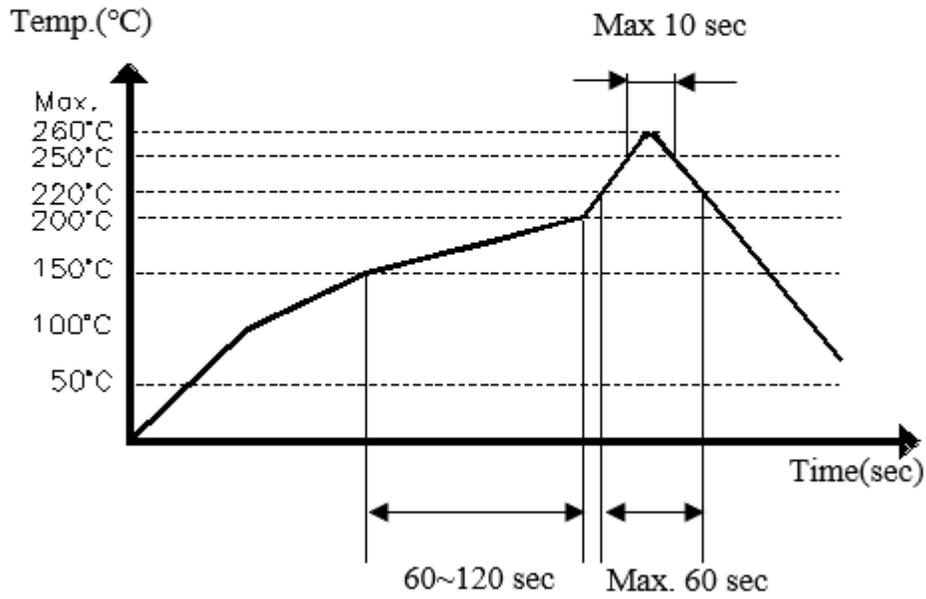


Recommended Reflow Soldering Procedure

- Recommendable reflow soldering condition is as follows.

Note 1; It is requested that reflow soldering should be executed after heat of product goes down to normal temperature.

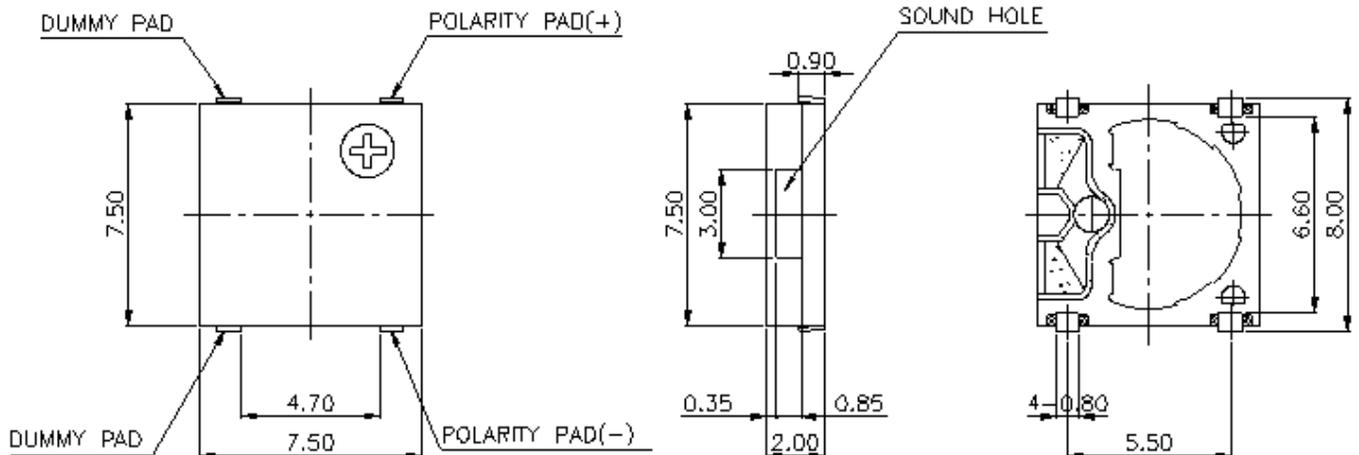
Note 2; Peak reflow temperature of 260°C, with a maximum duration of 60 sec. between 220°C and 260°C



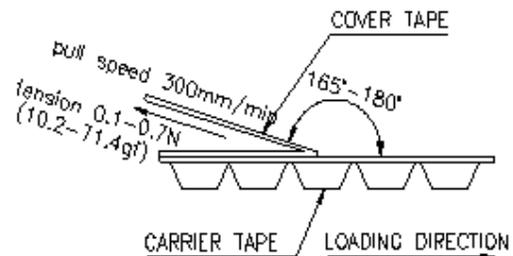
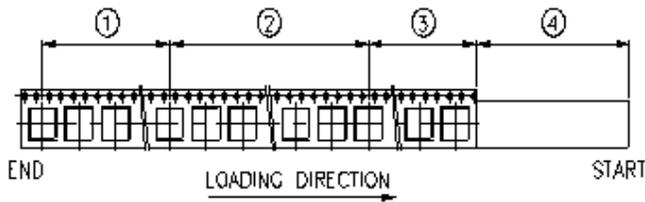
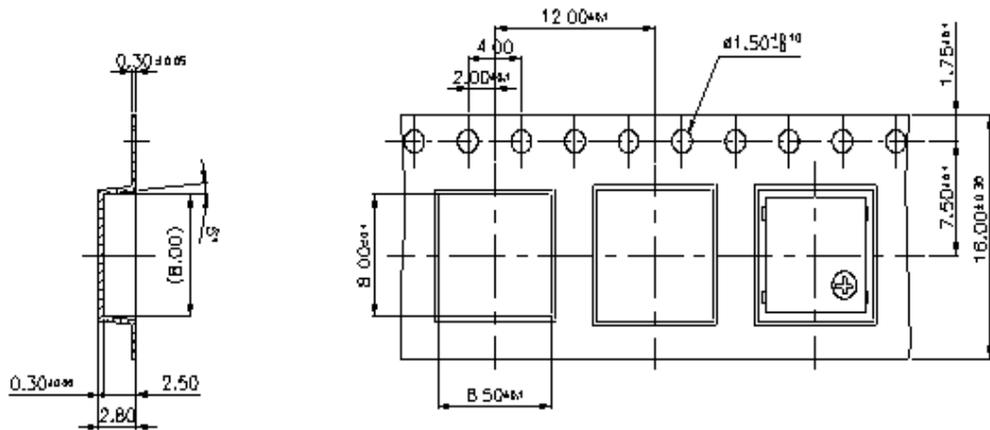
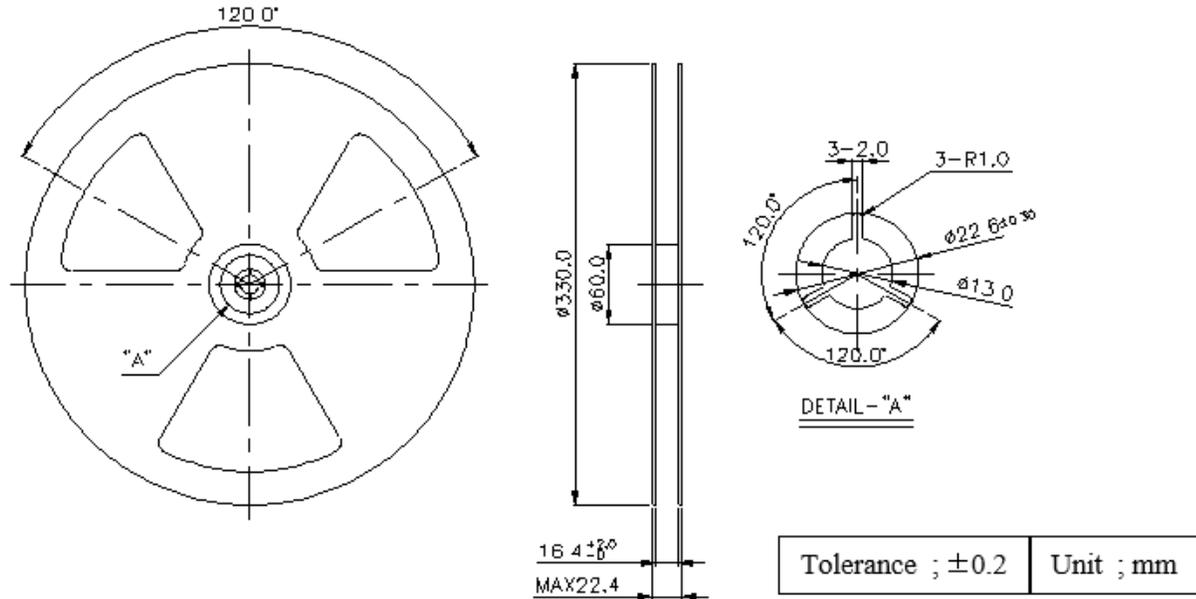
* Reflow profile of lead-free solder

*Manual Solder Iron Temperature 350C, solder time 2-3 seconds per terminal.

Dimensions (Tolerance ±0.2mm)

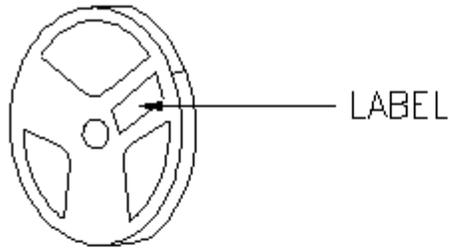


Packaging

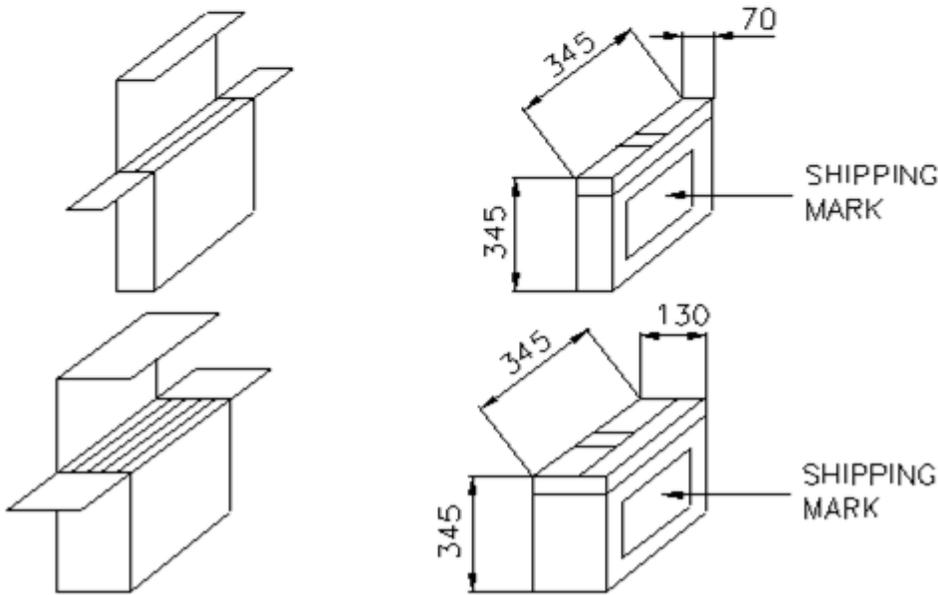


- ① BARE EMBOSS AREA : 400mm OVER(35PCS OVER)
- ② CHIP MOUNT AREA : 1,000PCS
- ③ BARE EMBOSS AREA , 400mmOVER(35PCS OVER)
- ④ LEADER AREA · 100mm OVER

1,000 PCS per 1roll by using the tapping M/C.



2rolls or 5rolls per 1 double(thick) carton box packed by polypropylene tape.



Specifications Revisions

Revision	Description	Date	Approved
-	Released from Engineering	09/15/2005	-
A	Revised to 3D Template	04/29/2010	BR
B	Update specification parameters and drawing	12/07/2022	-
C	Revise MSL to level 2	01/24/2025	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 withdraw without notice.