

SCOPE: This specification applies to TRSTP-0903

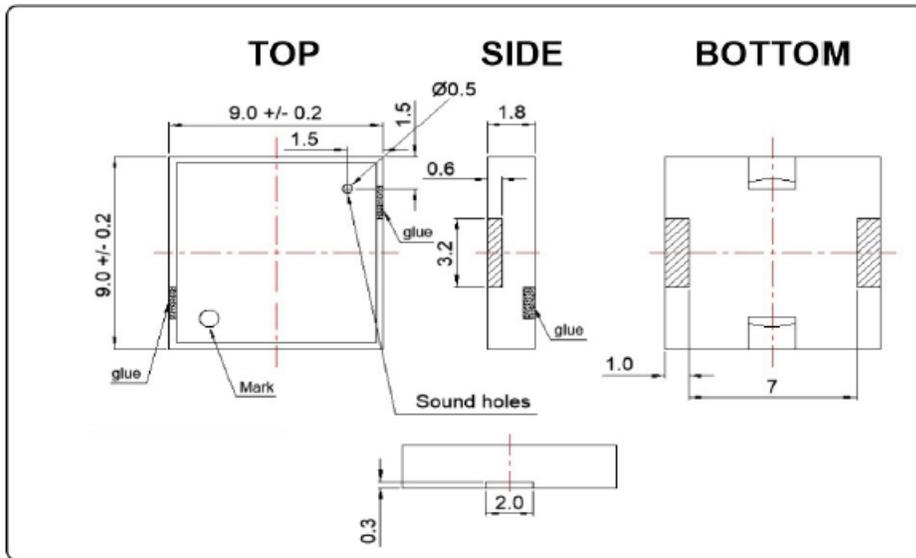
SPECIFICATIONS:

1. SPECIFICATIONS

PARAMETERS	VALUES	UNITS
*MIN SOUND PRESSURE LEVEL AT 10 CM	68	dBA
RATED VOLTAGE	3	Vp-p
MAX OPERATING VOLTAGE	25	Vp-p
RESONANCE FREQUENCY	4,100	Hz
CAPACITANCE AT 100Hz	12,000 ± 30%	pF
OPERATING TEMPERATURE	-20 to +70	°C
STORAGE TEMPERATURE	-30 to +80	°C
HOUSING	PPA	-
TERMINAL MATERIAL	TIN PLATED BRASS	-
WEIGHT	0.2	g

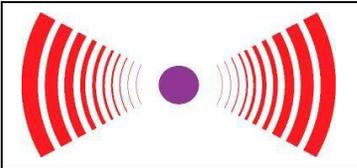
*Value applying rated voltage and resonance frequency

2. DIMENSIONS (unit in mm)



Tolerance: ±0.5mm except specified

Transducers USA
Confidential and Proprietary



Transducers USA
1400 Howard Street
Elk Grove, IL 60007
Toll Free: 888-921-6400 FAX: 847-956-1950
www.tusainc.com info@tusainc.com

All dimensions are in MM unless otherwise specified

Drawing Number:

TRSTP-0903

**SMD Piezoelectric
Sound Transducer
Page 1 of 5**

Date:

4/27/2017

THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS THE PROPERTY OF TRANSDUCERS USA, INC. AND EXCEPT FOR USE EXPRESSLY GRANTED TO THE UNITED STATES GOVERNMENT TRANSDUCERS USA, INC. RESERVES ALL PATENT PROPRIETARY DESIGN, USE, SALE, MANUFACTURING AND PRODUCTION RIGHTS THERETO. THIS DOES NOT APPLY TO VENDOR

SCOPE: This specification applies to TRSTP-0903

SPECIFICATIONS:

3. RELIABILITY TEST

Testing Criteria

All specifications (in page 2) must be satisfied after below tests.

(Recovery: 2 to 4 hrs of recovery under the standard condition after the removal from test chamber.)

1) Life Test

At 3 Vp-p, 1 minutes ON 1 minutes OFF in room temperature continuously for 1000 hours.

2) Temperature Test

a) High Temperature

Exposure at $+80 \pm 3^\circ\text{C}$ for 240 hours(Non-Functioning); Exposure at $+70 \pm 3^\circ\text{C}$ for 240 hours(Functioning)

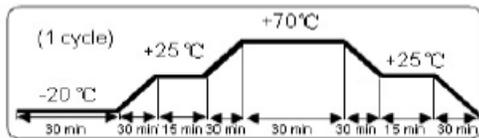
b) Low Temperature

Exposure at $-30 \pm 3^\circ\text{C}$ for 240 hours(Non-Functioning); Exposure at $-20 \pm 3^\circ\text{C}$ for 240 hours(Functioning)

3) Humidity Test

Exposure at $+40 \pm 3^\circ\text{C}$ and 90%-95% relative humidity for 240 hours.

4) Thermal Shock Test



Exposure to above temperature cycle for 5 times.

5) Drop Test

Dropped naturally from 750mm height onto the surface of 10mm wooden board. 2 directions – upper and side of the part are applied.

6) Vibration Test

Frequency: 10~55~10Hz Oct/min ,Amplitude: 1.5mm Duration: 2 hours in each 3 axes.

7) Shock

980m/s² (=100g) shock for each mutually perpendicular directions, half sine wave, 3 times each.

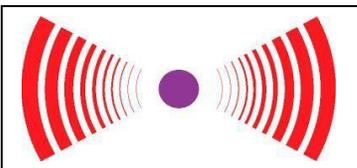
8) Soldering Heat Resistance

Samples put through reflowing soldering oven 2 twice.

9) Solderability

Samples put on PCB with solder paste through reflowing soldering oven 1 time.

Transducers USA
Confidential and Proprietary



Transducers USA
1400 Howard Street
Elk Grove, IL 60007
Toll Free: 888-921-6400 FAX: 847-956-1950
www.tusainc.com info@tusainc.com

All dimensions are in MM unless otherwise specified

Drawing Number:

TRSTP-0903

**SMD Piezoelectric
Sound Transducer
Page 2 of 5**

Date:

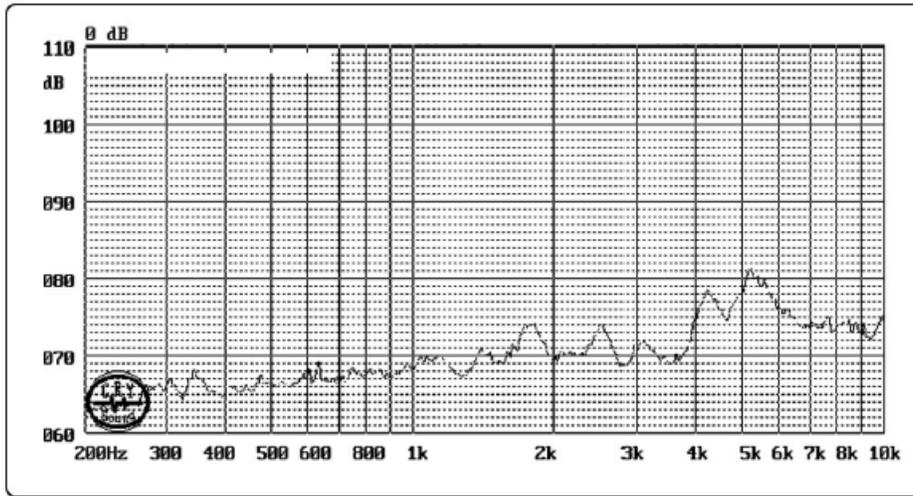
4/27/2017

THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS THE PROPERTY OF TRANSDUCERS USA, INC. AND EXCEPT FOR USE EXPRESSLY GRANTED TO THE UNITED STATES GOVERNMENT TRANSDUCERS USA, INC. RESERVES ALL PATENT PROPRIETARY DESIGN, USE, SALE, MANUFACTURING AND PRODUCTION RIGHTS THERETO. THIS DOES NOT APPLY TO VENDOR

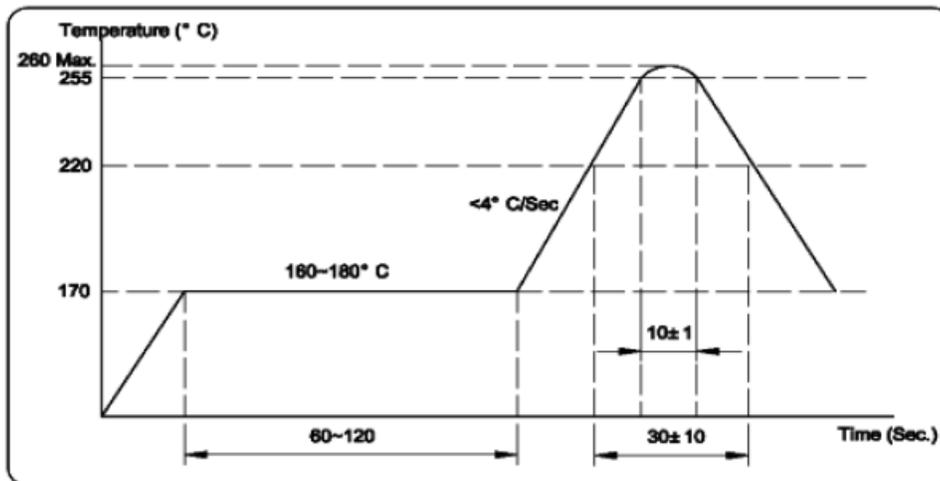
SCOPE: This specification applies to TRSTP-0903

SPECIFICATIONS:

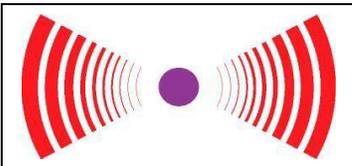
4. Frequency Response Curve



5. Recommend Reflowing Profile



Transducers USA
Confidential and Proprietary



Transducers USA
1400 Howard Street
Elk Grove, IL 60007
Toll Free: 888-921-6400 FAX: 847-956-1950
www.tusainc.com info@tusainc.com

All dimensions are in MM unless otherwise specified

Drawing Number:

TRSTP-0903

**SMD Piezoelectric
Sound Transducer
Page 3 of 5**

Date:

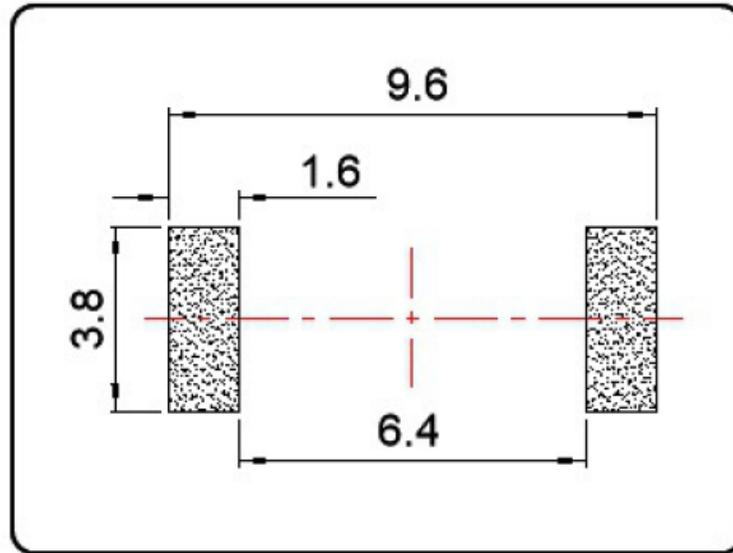
4/27/2017

THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS THE PROPERTY OF TRANSDUCERS USA, INC. AND EXCEPT FOR USE EXPRESSLY GRANTED TO THE UNITED STATES GOVERNMENT TRANSDUCERS USA, INC. RESERVES ALL PATENT PROPRIETARY DESIGN, USE, SALE, MANUFACTURING AND PRODUCTION RIGHTS THERETO. THIS DOES NOT APPLY TO VENDOR

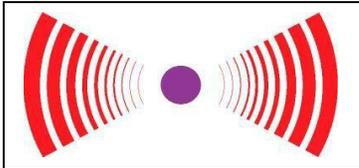
SCOPE: This specification applies to TRSTP-0903

SPECIFICATIONS:

6. Recommend PCB Layout



Transducers USA
Confidential and Proprietary



Transducers USA
1400 Howard Street
Elk Grove, IL 60007
Toll Free: 888-921-6400 FAX: 847-956-1950
www.tusainc.com info@tusainc.com

All dimensions are in MM unless otherwise specified

Drawing Number:

TRSTP-0903

**SMD Piezoelectric
Sound Transducer
Page 4 of 5**

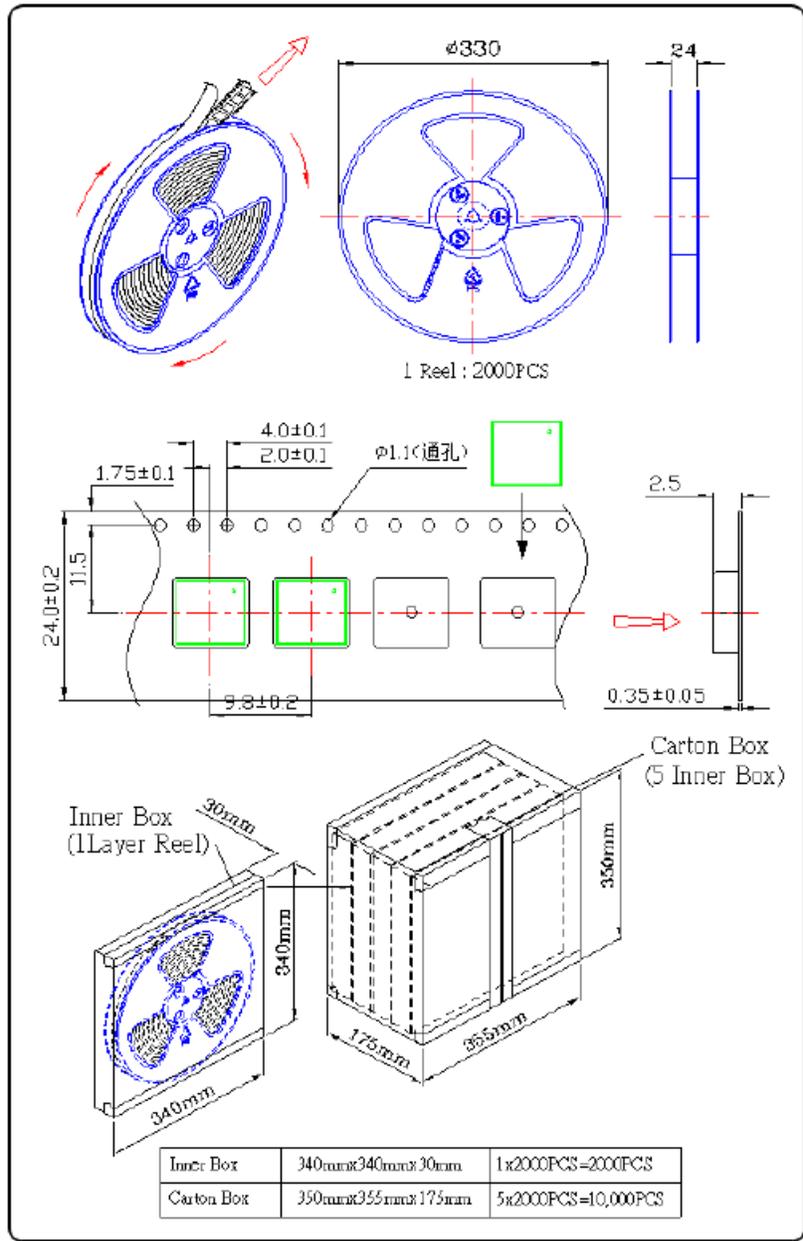
Date:

4/27/2017

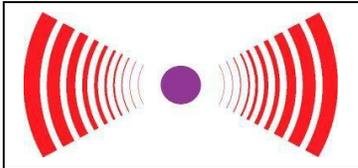
THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS THE PROPERTY OF TRANSDUCERS USA, INC. AND EXCEPT FOR USE EXPRESSLY GRANTED TO THE UNITED STATES GOVERNMENT TRANSDUCERS USA, INC. RESERVES ALL PATENT PROPRIETARY DESIGN, USE, SALE, MANUFACTURING AND PRODUCTION RIGHTS THERETO. THIS DOES NOT APPLY TO VENDOR

SCOPE: This specification applies to TRSTP-0903
SPECIFICATIONS:

7. PACKING INFORMATION



Transducers USA
 Confidential and Proprietary



Transducers USA
 1400 Howard Street
 Elk Grove, IL 60007
 Toll Free: 888-921-6400 FAX: 847-956-1950
www.tusainc.com info@tusainc.com

All dimensions are in MM unless otherwise specified

Drawing Number:

TRSTP-0903

**SMD Piezoelectric
 Sound Transducer
 Page 5 of 5**

Date:

4/27/2017

THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS THE PROPERTY OF TRANSDUCERS USA, INC. AND EXCEPT FOR USE EXPRESSLY GRANTED TO THE UNITED STATES GOVERNMENT TRANSDUCERS USA, INC. RESERVES ALL PATENT PROPRIETARY DESIGN, USE, SALE, MANUFACTURING AND PRODUCTION RIGHTS THERETO. THIS DOES NOT APPLY TO VENDOR