

Soberton Inc.

Product Data Sheet

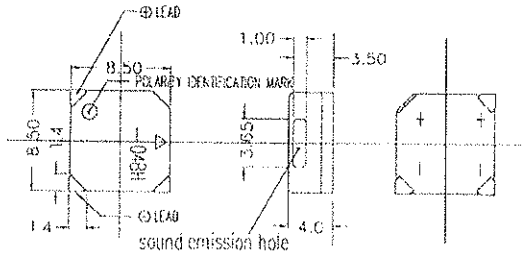
Part No. ST-04BT Reflow Type (SMD)

-ST-04 BL
-04 BH
-04 BT
-04 CH



8.5 × 8.5 × 4.0

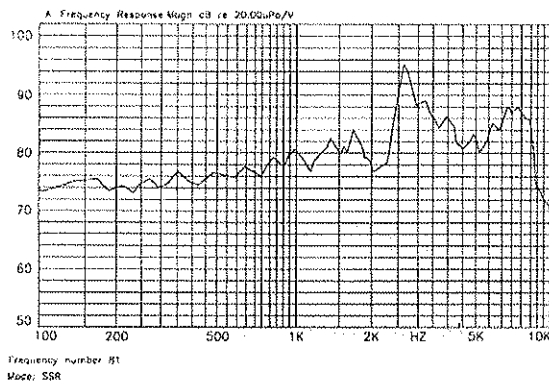
DIMENSIONS



UNIT : mm
TOLERANCE : 0.1
HOUSING MATERIAL : ECP

| Type | Unit | |
|--|------|---------------|
| Color | | Black |
| Rated Voltage | (V) | 3.6 |
| Operating Voltage | (V) | 2-4 |
| Current Consumption | (mA) | MAX.70 |
| Coil Resistance | (Ω) | 15±3 |
| Sound Output (Min) | (dB) | 87 |
| Resonance Frequency | (Hz) | 3200 |
| Operating Temp | (C) | -30~+85 |
| Storage Temp | (C) | -40~+85 |
| Weight | (g) | 1 |
| Terminal | | SMD |
| Dimension | mm | 8.5 x 8.5 x 4 |
| *applied voltage: Rated Voltage, 1/2 duty, square wave | | |
| *distance for measurement 10cm | | |

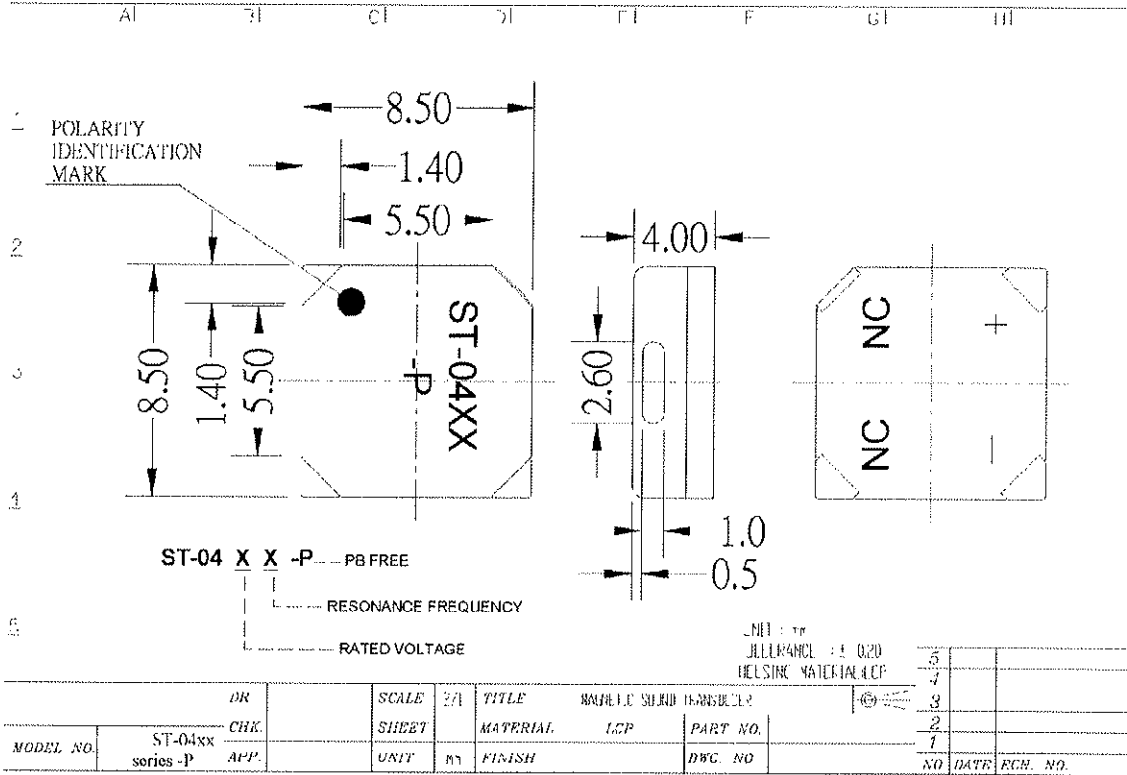
FREQUENCY RESPONSE



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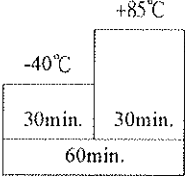
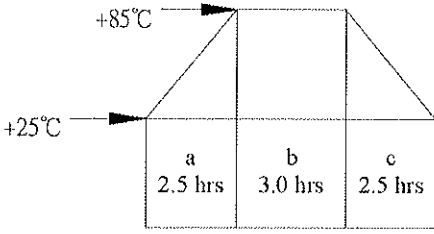


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RELIABILITY TEST

ST-04xx Series -P

Note: No voltage is applied to the part during reliability test No. 1~4

| Item | Test Conditions | Evaluation Standard |
|------|---|---|
| 1 | <p>Temp. test</p> <p>(1) High temp. storage life test: The part shall be capable of withstanding a storage temperature of +85°C for 96 hours.</p> <p>(2) Low temp. storage life test: The part shall be capable of withstanding a storage temperature of -40°C for 96 hours.</p> <p>(3) Temp. cycle: The part shall be subjected to 10 cycles. One cycle shall consist of ;</p>  | |
| 2 | <p>Temp. / Humidity cycle test</p> <p>The part shall be subjected to 10 cycles. One cycle shall be 8 hours and consist of ;</p>  <p>a, b : 90 ~ 98% RH c : 80 ~ 98% RH</p> | <p>After the test the part shall meet specifications without any degradation in appearance and performance except SPL.</p> <p>SPL shall be 87 dB or more.</p> |

RELIABILITY TEST

ST-04xx Series -P

Note: No voltage is applied to the part during reliability test No. 1~4

| Item | Test Conditions | Evaluation Standard |
|------|--|--|
| 3 | <p>Vibration Test</p> <p>The part shall be subjected to a vibration cycle of 10Hz to 55Hz to 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm(9.3G). The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.</p> | |
| 4 | <p>Dropping Test</p> <p>(1) Fixed drop : The part shall be mounted on 100g jig(standard pboard) and dropped from a height of 152cm onto a concrete floor 5 times in each 6 planes. (a total of 30 times.)</p> <p>(2) Free drop : The part shall be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X.Y.Z). (a total of 9 times.)</p> | <p>After the test the part shall meet specifications without any degradation in appearance and performance except SPL.</p> <p>SPL. shall be 87 dB or more.</p> |
| 5 | <p>Operating life test</p> <p>(1) Ordinary temperature : The part shall be subjected to 1000 hours at room temperature (25±10°C) with rated voltage & resonance frequency applied.</p> <p>(2) High temperature : The part shall be subjected to 500 hours at +70°C with rated voltage & resonance frequency applied.</p> <p>(3) Low temperature : The part shall be subjected to 500 hours at -30°C with rated voltage & resonance frequency applied.</p> | |

RELIABILITY TEST

ST-04xx Series -P

Note: No voltage is applied to the part during reliability test No. 1~4

| Item | Test Conditions | Evaluation Standard |
|----------------------------|---|---|
| 6 Solderability | <p>The part shall be dipped into the soldering bath conditioned as follows ;</p> <p>Solder temp. : $260 \pm 5^{\circ}\text{C}$</p> <p>Soaking time : 10 - 11 seconds</p> | 95% surface of lead pins must be covered with fresh solder and soldering balls should be found. |
| 7 Pin lead strength | 3 lead pins shall be solder on the pc board , and the force (10n) shall be applied behind the part for 10 ± 1 seconds. | |
| 8 For infrared reflow oven | <p><Recommended temperature profile for reflow oven> (Reference standard ; EIAJ ED-4702)</p> | <p>After the test the part shall meet specifications without any degradation in appearance and performance except SPL.</p> <p>SPL shall be 87 dB or more.</p> |