

date	02-Oct-06	<b>DATA SHEET</b>	Please visit <a href="http://www.bosanhitech.com">www.bosanhitech.com</a> for further details
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# SPECIFICATION

<part number : BST-5523SA>

(SMT magnetic transducer, Non Washable Type)



**Bosan Hitech Co., Ltd.**

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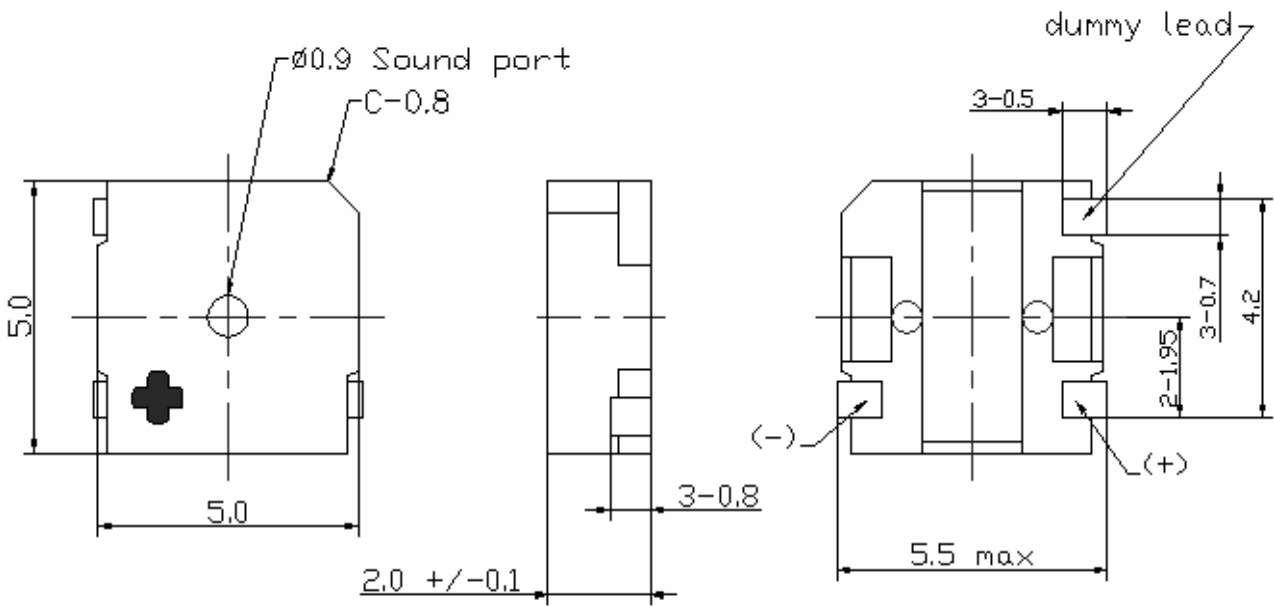
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**1. Dimension**



Unit : mm  
Tolerance :  $\pm 0.2$   
Housing material : LCP

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## 2. Scope

This specification is applied to the dynamic magnet transducer assembly- which is used as an alert or keypad tone in portable electronic product.

## 3. Electrical Specifications

All data at  $22 \pm 2$  °C, humidity  $65 \pm 10\%$  unless otherwise specified.

Items	Specifications	Unit	remark
rated voltage	<b>3.0</b>	Vo-p	
operating voltage	<b>2.0 ~ 4.0</b>	Vo-p	
rated frequency	<b>4,000</b>	Hz	
coil resistance	<b><math>12 \pm 3</math></b>	$\Omega$	
sound pressure level(SPL)	<b>Min. 78</b>	dBA	* f = 4,000Hz, Vo-p = 3.0 * 1/2 duty ratio wave * measuring distance : 10 cm
max. current consumption	<b>100</b>	mA	
operating temperature	<b>-30 ~ 70</b>	°C	
storage temperature	<b>-45 ~ 85</b>	°C	

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#### 4. Reliability specification

<p><b>temperature characteristics</b></p> <p>#. All data taken at -30°C and +85°C will be referenced to initial data taken at +25°C. #. Component must be fully stabilized at a constant - temperature chamber before data taken, which may require up to a 4 hours.</p>
<p><b>static humidity</b></p> <p>#. Precondition at 25°C for 60 minutes. After 72 hours at 40°C with 90% to 95% relative</p>
<p><b>vibration</b></p> <p>#. To vibrate at random 6 g's or 0.04 g /Hz power spectral density from 10 ~ 2000 Hz for 15 minutes per axis. #. Sinusoidal vibration 10 ~ 60 Hz, 0.06" double amplitude or 15 g's whichever is less for 1/2 hour per plane.</p>
<p><b>operating life</b></p> <p>#. To subject samples to 85°C at 85% RH for 168Hr at full rated power.</p>
<p><b>shear</b></p> <p>#. To subject sample on PC Board to a tensile side pull strength of 1Kg force for 30 seconds.</p>
<p><b>drop test</b></p> <p>#. While assembled in a dummy case, 5 free falls onto a concrete floor from a height of 150cm.</p>

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## 5. RoHS compliance

### # This product comply to RoHS 2002/95/EC

Detailed SGS reports are to be downloaded following link(last update : 24th May, 2006)

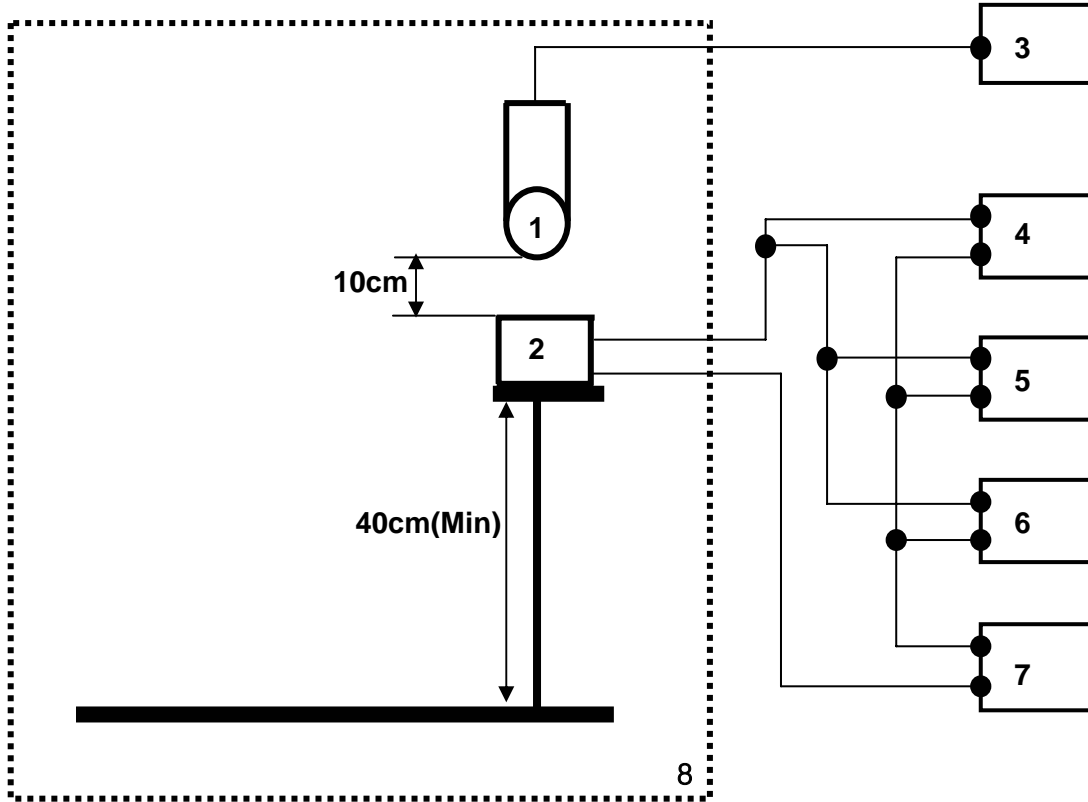
[www.bosanhitech.com/ICP\\_BOSAN.zip](http://www.bosanhitech.com/ICP_BOSAN.zip)

Type	Substances / Material	ppm(amount)	
Class I	Cadmium and compounds	3.2	
	Lead and compounds	81	
	Mercury and compounds	Not detected	
	Chrom(VI) and compounds	Not detected	
	Polybrominated biphenyls (PBBs)	Not detected	
	Polybrominated diphenylethers(PBDEs)	Not detected	
Class II	Polychlorinated biphenyls (PCBs)	Not detected	
	Polychlorinated Terphenyls (PCTs)	Not detected	
	Polychlorinated naphthalences (PCNs)	Not detected	
	Ozone depleting substances(CFCs, HCFCs, Halons)	Not detected	
	Asbestos and compounds	Not detected	
	Formaldehydes	Not detected	
	Short-chain chlorinated paraffins (Alkane 10 ~ 13 Carbon chain)	Not detected	
	Azo colorants	Not detected	
	Nickel and compounds	Not detected	
	Organic tin compounds	Not detected	
	Arsenic and compounds	Not detected	
	Class III	Phthalates	Not detected
		PVC	Not detected
		Beryllium and compounds	Not detected
Other Chlorinated flame retardants		Not detected	
Other Chlorinated flame retardants (TBBP-A)		Not detected	

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**6. Electrical / acoustical measuring equipments and their setting**



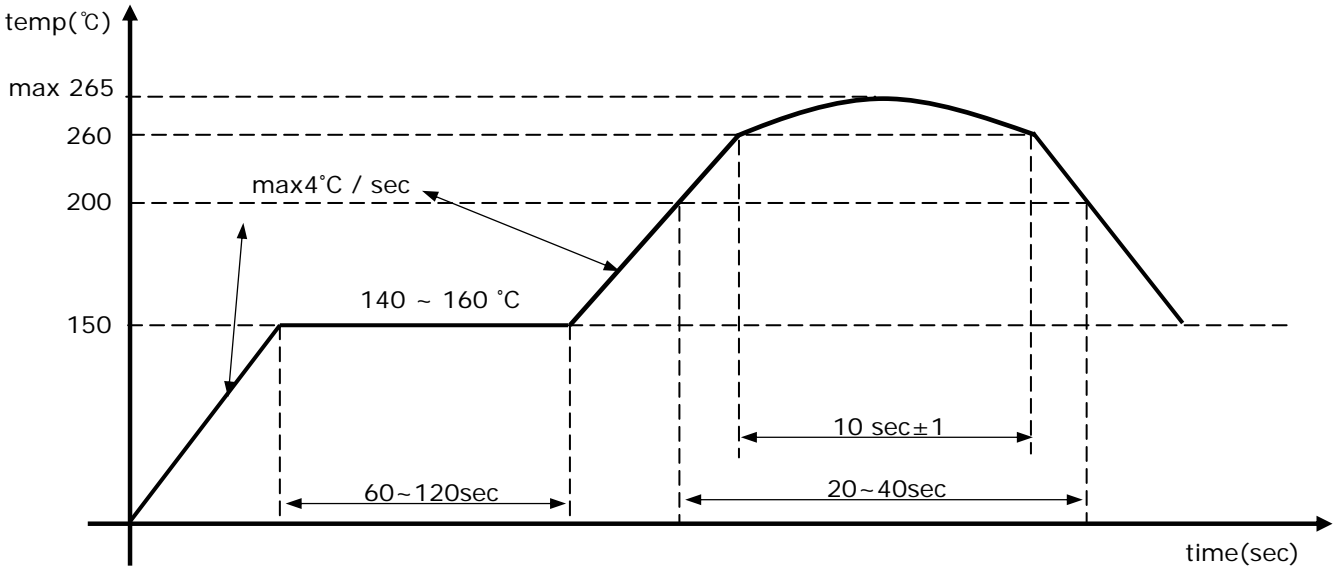
No.	equipments	remark
1	condenser mic	
2	device under test	magnetic transducer
3	F.F.T, or S.P.L indicator	
4	oscillator	
5	frequency counter	
6	voltage meter	
7	ampere meter	
8	sound proof room	

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**7. SMT / manual soldering conditions**

1) IR reflow profile



This part is withstandable with 2 passes in reflow with temp. condition above

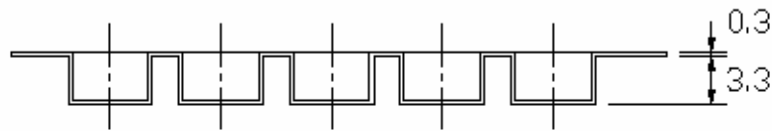
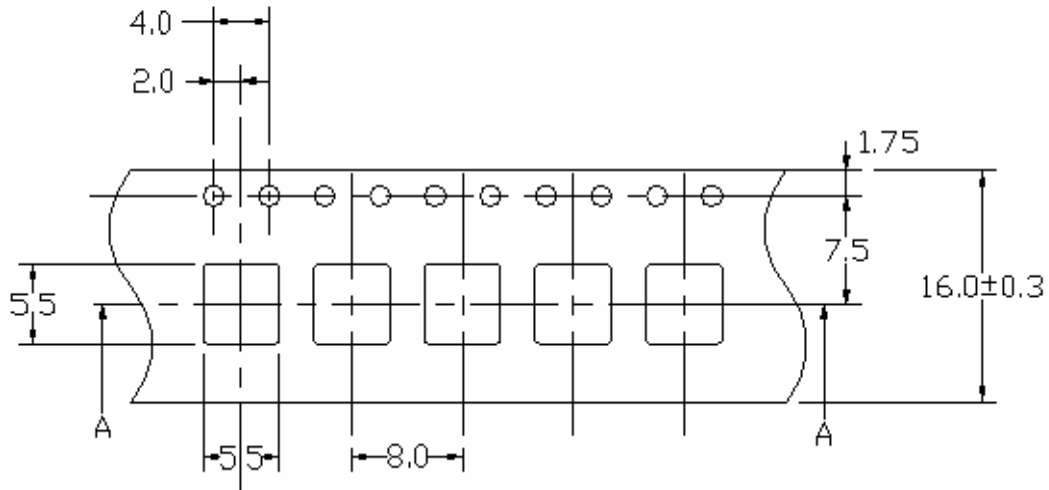
2) manual soldering

Condition for soldering iron : max. 250°C, within 10 secs.

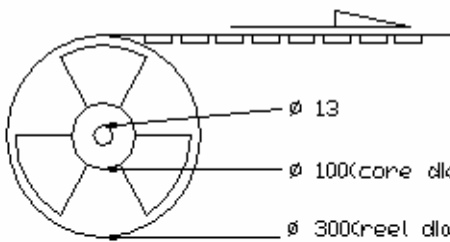
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**8. Packing format**



section A - A



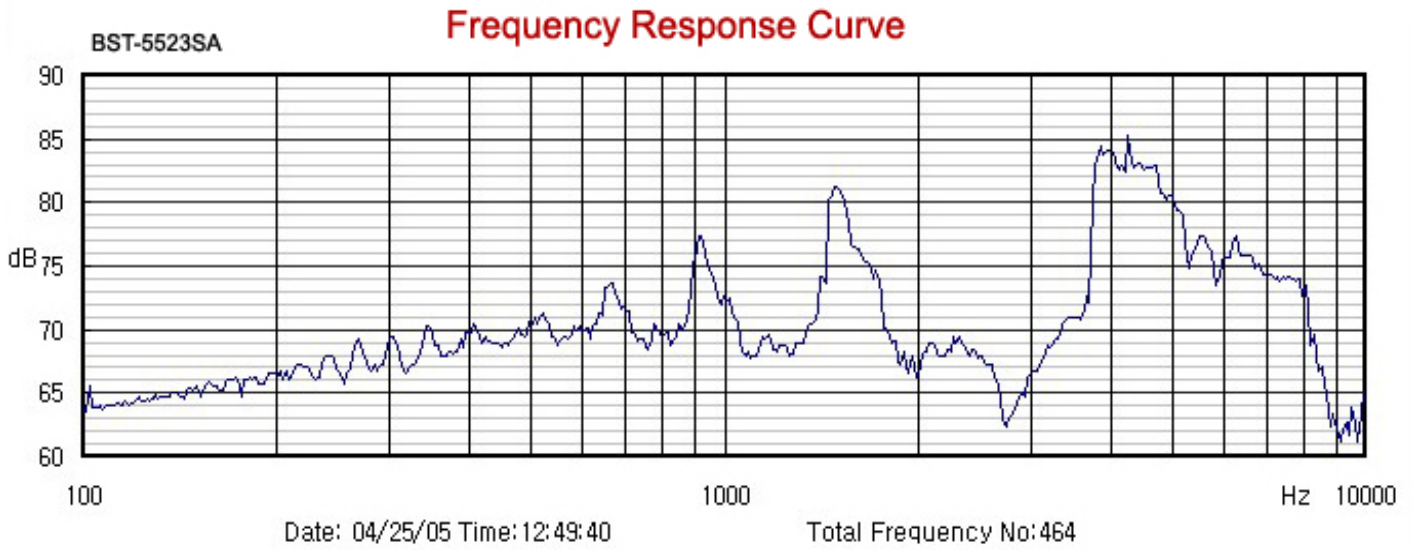
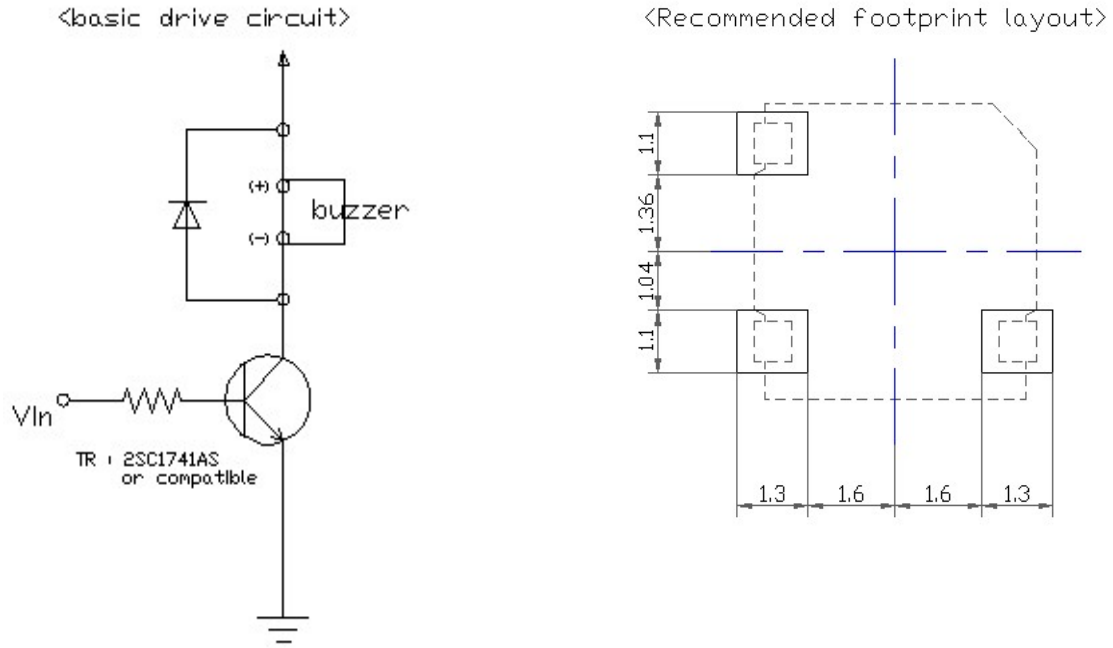
- \* General fillet : R0.25mm
- \* General tolerance : 0.1mm
- \* Emboss carrier tape is as per JIS C0806.
- \* Quantity per a reel is 2000 EA.

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**9. Others**



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