

**Description**

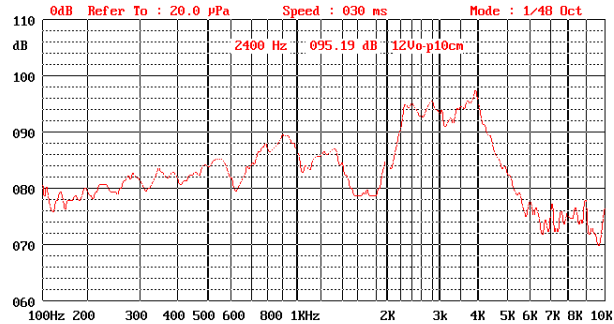
Chinasound SMD Electro-magnetic Transducer 12.8(<13mm) length & width, type A(=10mm height), 12Vo-p rated voltage – 140ohm coil resistance – 2.4KHz resonant frequency, Lead Free reflowing solderable, RoHS compliant

- ◆ RoHS compliant
- ◆ Small size
- ◆ Reflowing Solderable
- ◆ Flame Retardant Plastic
- ◆ Tape and reel packaging for auto mounting

**Picture**



**Frequency Response Curve**



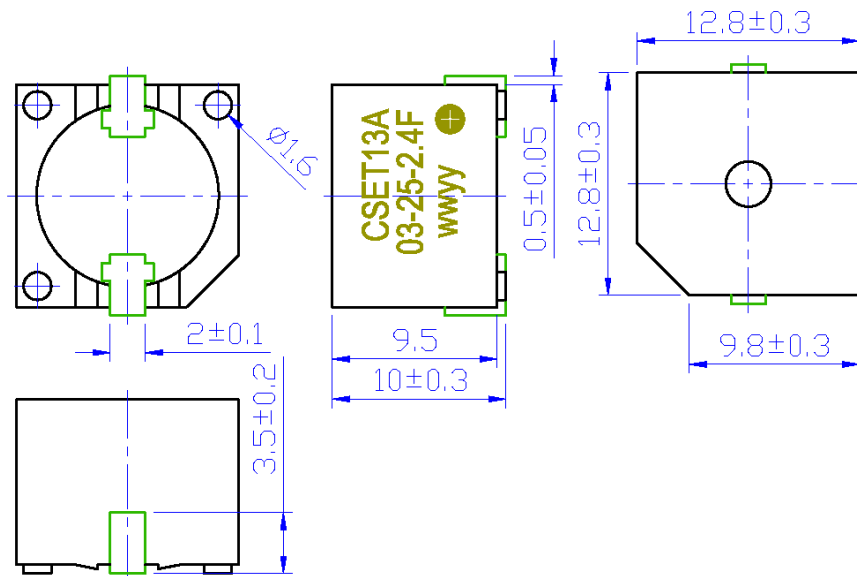
**Specification**

<b>Rated Voltage</b>	12 Vo-p square wave, 1/2 duty square wave
<b>Operating Voltage</b>	8~16 Vo-p square wave, 1/2 duty square wave
<b>Rated Current</b>	40 mA max. at 12 Vo-p square wave, 1/2 duty square wave, 2400Hz
<b>Coil Resistance</b>	140+/-14 ohm
<b>Sound Output</b>	90dB min. ( Typ. 93 dB ) at 12 Vo-p square wave, 1/2 duty square wave, 10cm, 2400Hz
<b>Operating Frequency</b>	2400+/-500Hz
<b>Operating Temperature</b>	-30 °C to +85 °C
<b>Storage Temperature</b>	-40 °C to +90 °C
<b>Termination</b>	4 soldering pads, Sn plated Brass
<b>Construction Materials</b>	Case Plastic, LCP Vectra E130i Diaphragm Ni Alloy Disc N50
<b>Weight (Typical)</b>	2.8 g
<b>Reliability</b>	*Life Test At 12 Vo-p in room temperature continuously for 1000 hours no function at +90+/-2 °C for 96 hours, function at +85+/-2 °C for 96 hours, *High Temperature no function at -40+/-2 °C for 96 hours, function at -30+/-2 °C for 96 hours, *Low Temperature 25+/-2 °C, 90-95%RH, 5hr→up to 55+/-2 °C, 90-95%RH, 0.5hr →55+/-2 °C, 90-95%RH, *Humidity 5hr→down to 25 +/-2 °C, 90-95%RH, 0.5hr, 10 cycles *Thermal Shock -40+/-2 °C, 30min→+20 °C, 15min, →+85+/-2 °C, 30min→+20 °C, 15min, 5 cycles *Vibration 1.5mm with 10 to 50Hz of vibration frequency to each of 3 perpendicular direction for 2 hrs *Shock 98m/s <sup>2</sup> (=10g) shock for each mutually perpendicular directions, half sine wave, 3 times each Dropped naturally from 750mm height onto the surface of 10mm wooden board. 2 directions – upper and side of the part are applied *Drop Test Samples put through reflowing soldering oven 2 times *Soldering Heat Resistance Samples put on PCB with solder paste through reflowing soldering oven 1 times **Solderability

**Warranty**

\* All specifications must be satisfied after the test (Recovery:2 to 4 hrs of recovery under the standard condition after the removal from test chamber).  
\*\*90% min. soldering pads shall be with solder.(except the edge of pad)

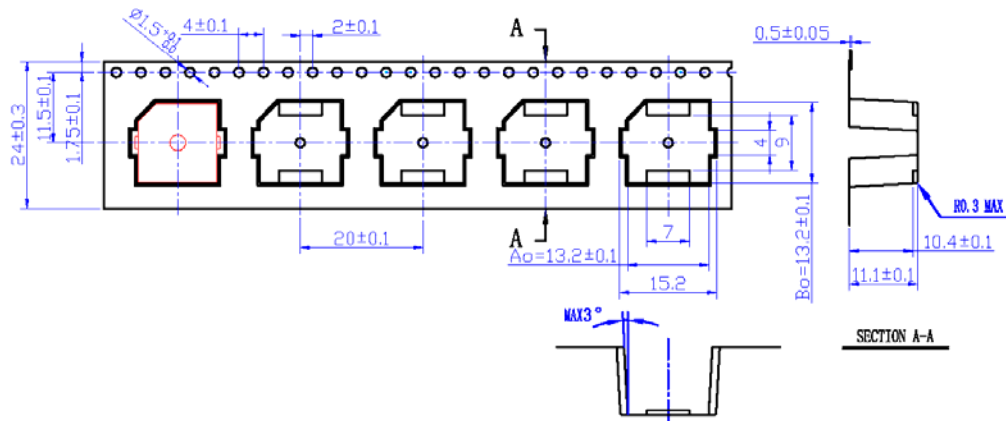
**Dimensions ( Unit: mm )**



All specifications are subject to change without notice

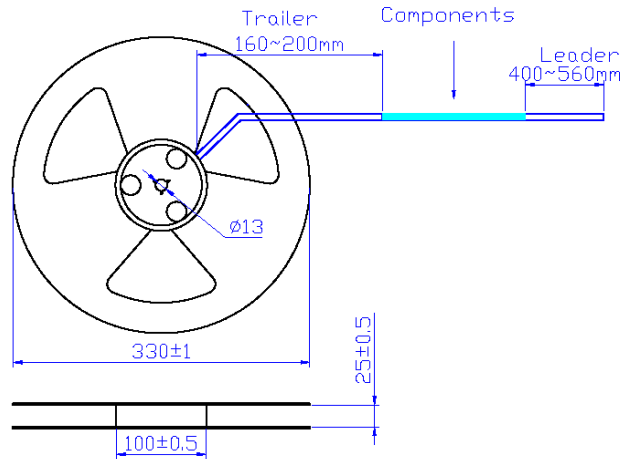
Composed by: Guo J / 090610 Checked by: Gong YS, Zhu YC / 090610 Approved By: Wang Z / 090610

**Tape & Reel Dimensions** (Unit:mm)

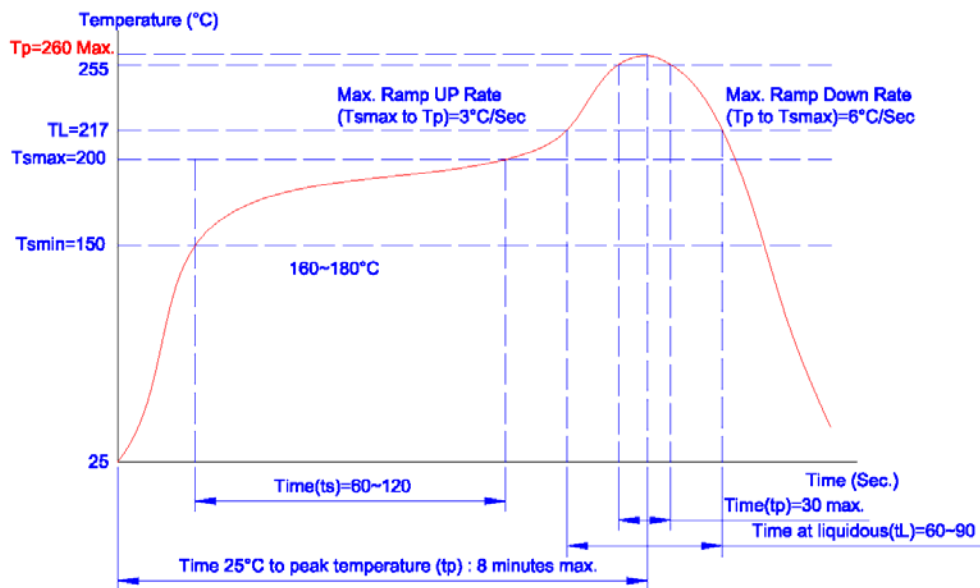


**NOTE:**

1. 10 sprocket hole pitch cumulative tolerance+/-0.20mm.
2. Carrier camber is 1 mm in 100 mm.
3. A0 and B0 measured on a plane on a place 0.30mm above the bottom of the pocket.
4. K0 measured from a plane on the inside bottom of the pocket to the top surface of the carrier.
5. All dimensions meet EIA-481-2-A requirements.
6. Component load per 13" Reel: 300 pcs.



**Recommend Reflowing Profile** as per IPC/JEDEC J-STD-020D



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## Revisions History

Version Number	Description	Name
020610	Original, CSET13A12-140-2.4	Guo Jun
050907	Switched to RohS compliant version, CSET13A12-140-2.4F	Guo Jun
090610	To update the Recommend Reflowing Profile as per IPC/JEDEC J-STD-020D after test	Guo Jun

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