120

dB 116

100

090

080

070 100Hz 200

# Description

### CSPT23B09-4.0F:

Chinasound SMD Piezo Transducer 23mm diameter, type B(=10.8mm height), 9Vp-p rated voltage - 4KHz resonant frequency, lead Free reflowing solderable and RoHS compliant

## RoHS compliant

Reliable Solid State Piezoelectric Technology

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ZK

3k 4K 5K 6K 7K 8K 10K

Version: 061005

- Flame Retardant Plastic
- Reflowing solderable

**Frequency Response Curve** 

### Picture



# Sp

Specification		
Rated Voltage		9 Vp-p square wave
Operating Voltage		30 Vp-p max.
<b>Operating Frequency</b>		4000+/-500Hz
Typical Sound Output		100dB min. at 9Vp-p 10cm 4KHz 25 °C
Rated Current		5mA at 9Vp-p 4KHz 25 °C
Capacitance		12000+/-30% pF at 100Hz 1Vrms
Operating Temp.		-30 °C to +85 °C
Storage Temperature		-40 °C to +90 °C
Termination	Description	2 soldering pads, Sn plated Brass
	Termination Strength	Maximum of 9.8N (1kgs) for 10 seconds load pull test
<b>Construction Materials</b>	Case	Plastic, PPS A7-03 or equal
	Diaphragm	Ni Alloy Disc N42 or equal
Weight (Typical)		3.05 g
Reliability	*Life Test	At 9 Vp-p in room temperature continuously for 1000 hours
	*High Temperature	No function at +90+/-2 °C for 240 hours; Function at +85+/-2 °C for 240 hours
	*Low Temperature	No function at -40+/-2 °C for 240 hours; Function at -30+/-2 °C for 240 hours
	*Humidity	+40+/-2 °C, 95+/-5%RH, 240 hours
	*Thermal Shock	-30+/-2 °C 0.5 hr $\rightarrow$ +25+/-2 °C 0.25 hr $\rightarrow$ +85+/-2 °C 0.5 hr $\rightarrow$ +25+/-2 °C 0.25 hr. Temperature Go up or Drop time is 0.5 hr. 3 hrs per 1 cycle. Total is 5 cycles
	*Vibration	1.5mm with 10 to 50Hz of vibration frequency to each of 3 perpendicular directions for 2 hours
	*Shock	980m/s <sup>2</sup> (=100g) shock for each mutually perpendicular directions, half sine wave, 3 times each
	*Drop Test	Dropped naturally from 750mm height, onto the surface of 10mm wooden board. 2 directions – upper and side of the part are applied
	*Soldering Heat Resistance	Samples put through reflowing soldering oven 2 twice
	**Solderability	Samples put on PCB with solder paste through reflowing soldering oven 1 times
Warranty		For a period of one (1) year from date of manufacture under normal operations

300

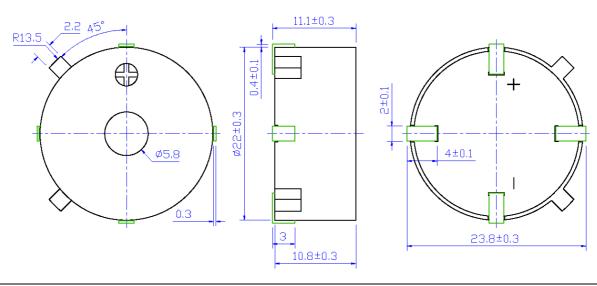
400 500 600

800 1KHz

#### War

\*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)

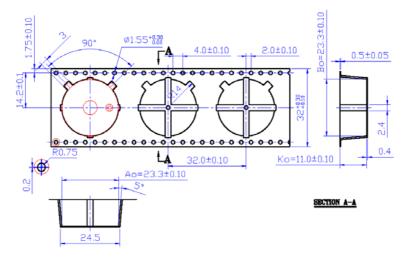
### **Dimensions** (Unit:mm)



All specifications are subject to change without notice

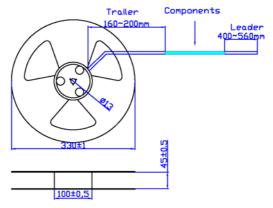


### Tape & Reel Dimensions (Unit:mm)

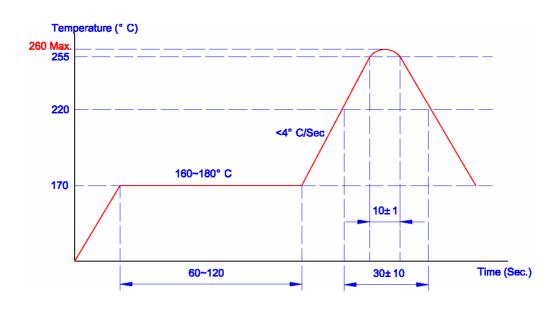


### NOTE:

- 1.10 sprocket holes pitch cumulative tolerance +/-0.20mm.
- 2.Carrier camber not to exceed 1 mm in 100 mm.
- 3. Ao & Bo measured on a place 0.3mm above the bottom of the pocket
- 4. Ko measured from a plane on the inside bottom of pocket to the top surface of the carrier.
- 5. All dimensions meet EIA-481-2-A requirements.
- 6. Component loaded per 13" reel: 150 pcs.



# **Recommend Reflowing Profile**



All specifications are subject to change without notice

Chinasound