# BFC-D45-7-32-012 v.01b 40mm Headphone Speaker

40mm STAPEZ™ brand headphone speaker.

#### **FEATURE HIGHLIGHTS:**

- Special semi-rigid extreme light-weight PEEK-Paper composite diaphragm for headphones demanding high SPL and low distortion
- High power handling : 40mW (continuous), 100mW (transient)
- Over-sized N45 Neodymium (NdFeB) magnet motor
- Copper clad aluminum wire voice coil
- PU surround



# APPLICATIONS (B/O: BATTERY-OPERATED; L/P: LINE/SYSTEM-POWERED; S/A: STANDALONE):

- High fidelity headphones:
  - Circumaural headphones.
  - Supra-Aural headphones.
- Bluetooth headphones.
- Communication headsets.
- DIYers and Makers.

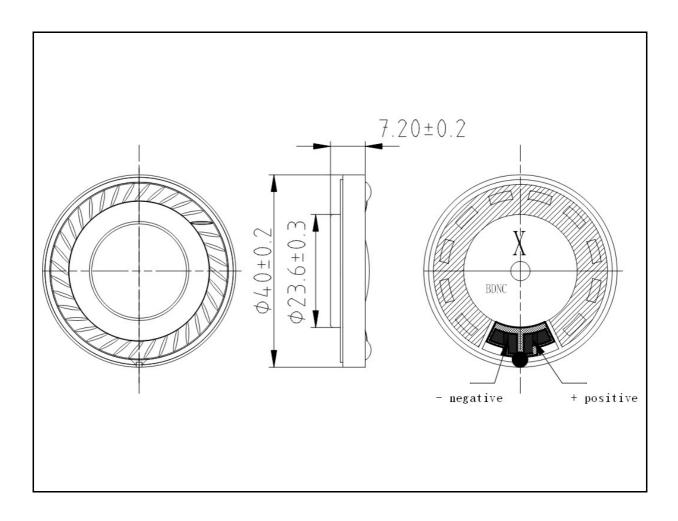


1:1 size in A4 paper



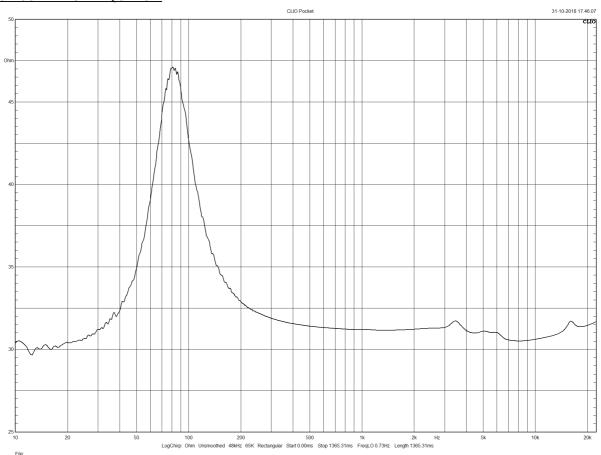
## **DRAWINGS AND DIMENSIONS:**

All units are in mm unless specified.

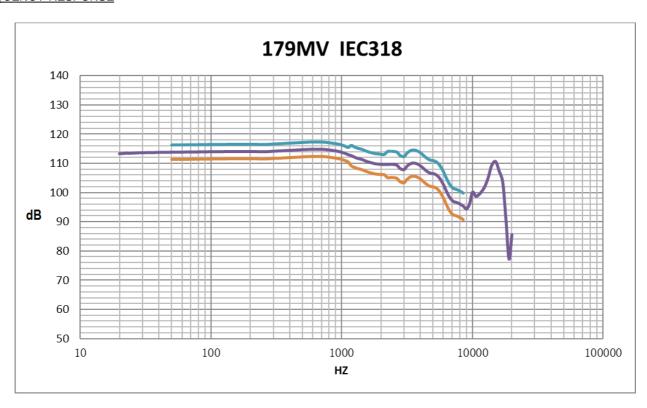




#### **IMPEDANCE CURVE VS FREQUENCY:**



### **FREQUENCY RESPONSE**





# ELECTRICAL, ACOUSTICAL, AND THIELE/SMALL PARAMETERS:

Parameter	Min.	Typical	Max.	Testing Conditions
DC Resistance (Re)		32 ohm		
Resonance Frequency (Fs)		80Hz		
Usable frequency range		16Hz-24kHz		
Continuous Power		40mW		
Max. Power (transient)		100mW		
Excursion, peak-to-peak (Xmax)		-		
Moving Mass (Mms)		-		
Effective Radiating-area (Sd)		9cm <sup>2</sup>		
Force Factor (BL)		-		
Specific Force Factor (BL/√Re)		-		
Compliance, free-air (Cms)		-		
Eqv. Compliance Volume (Vas)		-		
Voice Coil Inductance (Le)		-		
Diaphragm Displacement Volume, peak-to-peak(Vd)		-		
Sensitivity (IE318 Ear)		113dBSpl		
NdFeB magnet rating		N45		
NdFeB magnet weight		5g		
Voice-coil magnet wire weight		-		
Driver Weight		16.5g		
Voice-coil magnet wire grade		EISV		
Magnet wire material		CCAW		
Max. Voice-coil Temperature		180°C		
Operating Temperature		-10 to 40 °C		
Storage Temperature		-20 to 70 °C		
Rated Harmonic Distortion		50-500Hz <=2%; 500-8kHz <=1%;		