



AmorphCore Series ITA-05

Interstage transformer

1:1

Bifilar wound interstage transformer

- **Amorphous Metglas™ dual C-core**
- Bifilar winding scheme
- 1:1 winding ratio
- 5 – 360,000 Hz bandwidth
- 25 mA nominal DC current

The AmorphCore series " type ITA-05" is an interstage transformer that makes use of a amorphous double C-core in a small package sourced from a leading manufacturer thereby ensuring high quality standards. Interstage coupling, if applied correctly, results in the most efficient coupling of the driver stage to the power tube and also has the benefit of substantially reduced supply voltages. In most cases, interstage transformers have a bad reputation with respect to bandwidth and the presence of resonances at higher frequencies. There is one specific topology that does not suffer from the aforementioned limitations: a bifilar wound 1:1 interstage transformer. When using a bifilar transformer the coupling between the two windings is that good that you can put as many as possible windings on it while still having very good high frequency behaviour. Bandwidth is around 5 Hz ... > 200 kHz when using an ECC99 to drive a 300B power tube.

E L E C T R I C A L D A T A

Winding ratio	1:1
Bandwidth (-3 dB @ 1W, sec. grounded)	5 – 360,000 Hz
Core saturation	11 Hz @ 100 Vrms
Primary inductance	85 H _y
Primary DC resistance	340 Ω
Sec. DC resistance	340 Ω
Maximum recommended P/S DC voltage	375 V

Bandwidth for various Rgen
RL=100K //50pF, secondary grounded

Rgen (ohm)	f-3dB (Hz) LF	f-3dB (kHz) HF
700	1.6	> 500
2200	4.9	360
5000	11.0	164
8200	18.3	101

Mechanical data & electrical connections

CASE-0

[preliminary new case layout datasheet](#)