Ferrites

Block
QU100/30/19

Series/Type: **B67410A106X87**

Date: 2010-01-29
Version: 2

Magnetic Characteristics

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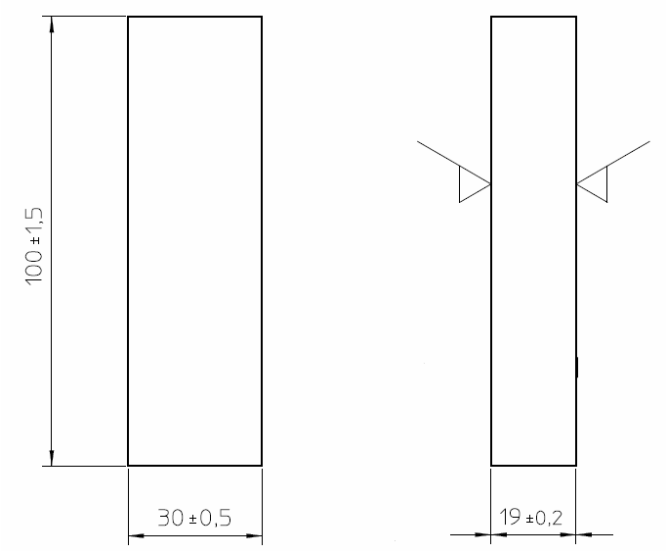
V_e = 57000 mm^3



Approx. weight

270 g

Dimensions

See picture

Packing:

Standard Styrofoam tray (size 200 mm x 300 mm)

Material	μ_i 1) -	Bs 2) mT	P_{Vmax} 3) mW/cm^3	Ordering code
N87	2200 ± 25 %	-	≤ 600 (100kHz, 200mT, 100°C)	B67410A106X87
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1) Measurement Parameter: 10 kHz, 0.25 mT, 2 turns, room temperature

2) Measurement Parameter: -

Measurement 1) 2) 3) to be done on the three toroids cut out from sintered blocks

Cautions and warnings

Mechanical stress and mounting

Ferrite cores have to meet mechanical requirements during assembly and for a growing number of applications. Since ferrites are ceramic materials one has to be aware of their special behavior under mechanical load.

Just like any ceramic material, ferrite cores are brittle and sensitive to any shock, fast changing or tensile load. Especially fast cooling rates under ultrasonic cleaning, high static and cyclic loads can cause cracks or failure of the ferrite cores.

For detailed information see Data Book 2007, chapter “General – Definitions, 8.1”.

Effects of core combination on AL value

Stresses in the core affect not only the mechanical but also the magnetic properties. It is apparent that the initial permeability is dependent on the stress state of the core. The higher the stresses are in the core, the lower the value for the initial permeability. Thus, the embedding medium should offer the greatest possible elasticity.

For detailed information see Data Book 2007, chapter “General – Definitions, 8.2”.

Heating up

Ferrites can run hot during operation at higher flux densities and higher frequencies.

NiZn-materials

The magnetic properties of NiZn-materials can change irreversibly when exposed to strong magnetic fields.

Processing notes

– The start of the winding process should be soft. Otherwise, the flanges may be destroyed.
– Excessive winding forces may damage the flanges or squeeze the tube so that the cores can no longer be mounted.
– Excessive soldering time at high temperature (>300 °C) may affect coplanarity or pin arrangement.
– Not following the processing notes for soldering of the J-leg terminals may cause solderability problems at the transformer because of contamination with tin oxide (SnO) from the tin bath or burned insulation from the wire. For detailed information see Data Book 2007, chapter “Processing notes, 2.2”.
– The dimensions of the pin hole arrangement are fixed and should be understood as an ideal recommendation for drilling the printed circuit board. In order to avoid problems when mounting the transformer, customers should make allowances for manufacturing tolerances in the drilling and pick-and-place processes by increasing the diameter of the pin holes.

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