

Audio Output Transformer LL1539

LL1539 is an audio output transformer for balanced drive.

In LL1539, the winding arrangement is such that (properly connected) the secondary windings are surrounded by cold (neutral) parts of the primary windings. This reduces the effect of the capacitance between the primary and the secondary windings. Thus, primaries should always be connected as in the application example below, with or without current feedback drive (negative source impedance).

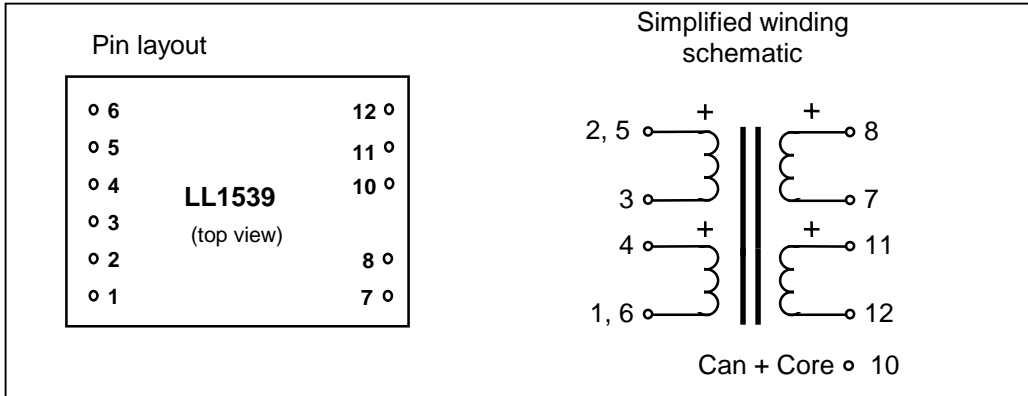
Turns ratio:

2 : 1 + 1

Dims (Length x Width x Height above PCB (mm)):

47 x 34 x 21

Pin layout (viewed from component side) and winding schematics:



Spacing between pins:

5.08 mm (0.2")

Spacing between rows of pins:

35.56 mm (1.4")

Weight:

130 g

Rec. PCB hole diameter:

1.5 mm

Static resistance of each primary half (4 -- 1&6 or 3 -- 2&5 respectively):

20 Ω

Static resistance of each secondary:

20 Ω

Secondary leakage inductance (secondaries in series):

0.6 mH

No-load impedance:

>2 kΩ @ 50 Hz, +20 dBU

Optimum source impedance:

Minus 40 Ω

Balance of output (according to IRT, source < 10 Ω, load 600 Ω):

> 65 dB

Maximum output level before saturation (load 600 Ω):

+ 24 dBU @20Hz

Frequency response (@ 10 dBU, source < 10 Ω, load 600 Ω):

20 Hz -- 60 kHz +/- 0.3 dB

Voltage loss across transformer (at midband with 600 Ω load):

1 dB

Isolation between primary and secondary windings / between windings and core:

4 kV / 2 kV

Application example: This schema shows the principles of mixed feedback circuitry for eliminating transformer-induced distortion and for reducing output impedance. (NOTE! This application was covered by a now outdated German patent DE 29 01 567 with application day 13.1.79)

