



## **SHDSL interface transformer**

for Infineon ICs SDFE-x and Socrates family  
EP 13, 3.019 mH, 2.25:2.25:1

**Ordering code:**            **B78421P1853A003**

**Date:**                      **October 2008**

**Application**

- Matched to Infineon ICs SDFE-x and Socrates family
- PEF 21624, 22624, 24624
- PEF 21627, 22627, 24627
- PEF 21628, 22628, 24628
- PEF 24625

**Features**

- To EN 60950, supplementary insulation, operating voltage 150 V
- RoHS-compatible

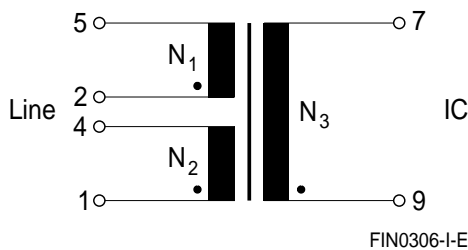
**Marking**

- Manufacturer, middle block of ordering code, date code

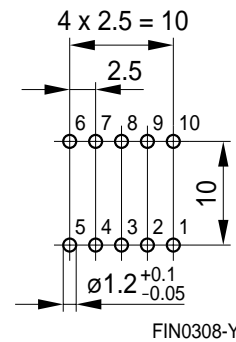
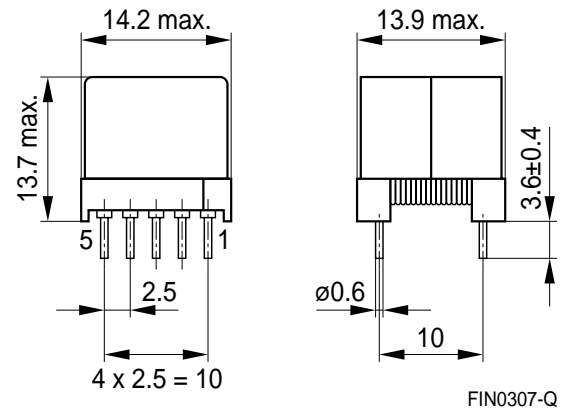
**Delivery mode and packing unit**

- Polyfoam tray
- Packing unit: 500 pcs.

**Pinning**



**Dimensional drawing**



Recommended hole arrangement (view in mounting direction)

Dimensions in mm

**Technical data and measuring conditions**

Main inductance L (1-5)	10 kHz, 100 mV, short 2-4
Stray inductance $L_{\text{stray}}$ (1-5)	100 kHz, 100 mV, short (2-4), (7-9)
Resistance $R_{\text{DC (Line)}}$ ; $R_{\text{DC (IC)}}$	$R_{\text{DC (Line)}}$ : short 2-4; $R_{\text{DC (IC)}}$ : –
Test voltage $V_{\text{test}}$	50 Hz, 1 s; $N_1$ , $N_2$ against $N_3$
Total harmonic distortion THD	1 V, 5 kHz, 135 $\Omega$ , line side
Operating temperature range	–40 °C ... +85 °C
Weight	Approx. 7.0 g

**Characteristics and ordering code**

(electrical specifications at 25 °C)

Ordering code	B78421P1853A005	
Type/Core	EP 13	
$N_1 : N_2 : N_3$	2.25 : 2.25 : 1	
L	3.019 $\pm$ 6 %	mH
$L_{\text{stray}}$	< 35	$\mu$ H
$R_{\text{DC (Line)}}$ (typ.)	4.0	$\Omega$
$R_{\text{DC (IC)}}$ (typ.)	0.7	$\Omega$
$V_{\text{test}}$	1500	V AC
THD (typ.)	86	dB

## Cautions and warnings

- Please note the recommendations in our Inductors data book (latest edition) and in the data sheets.
  - Particular attention should be paid to the derating curves given there.
  - The soldering conditions should also be observed. Temperatures quoted in relation to wave soldering refer to the pin, not the housing.
- If the components are to be washed varnished it is necessary to check whether the washing varnish agent that is used has a negative effect on the wire insulation, any plastics that are used, or on glued joints. In particular, it is possible for washing varnish agent residues to have a negative effect in the long-term on wire insulation.
- The following points must be observed if the components are potted in customer applications:
  - Many potting materials shrink as they harden. They therefore exert a pressure on the plastic housing or core. This pressure can have a deleterious effect on electrical properties, and in extreme cases can damage the core or plastic housing mechanically.
  - It is necessary to check whether the potting material used attacks or destroys the wire insulation, plastics or glue.
  - The effect of the potting material can change the high-frequency behaviour of the components.
- Ferrites are sensitive to direct impact. This can cause the core material to flake, or lead to breakage of the core.
- Even for customer-specific products, conclusive validation of the component in the circuit can only be carried out by the customer.

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