



## **SMT gate drive transformers**

### **EP5 series**

**Series/Type:**           **B82804A**  
**Date:**                    **October 2012**

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**Construction**

- EP5 ferrite core
- 6 gull wing terminals

**Features**

- Height: 5.4 max
- Footprint: 8.1 x 6.7 mm
- Low leakage inductance
- Low inter-winding capacitance
- High SRF value
- High isolation between primary and secondary side
- RoHS compatible

**Applications**

- Gate drive transformers
- General purpose (non-automotive): isolated AC/DC, DC/DC converters

**Marking**

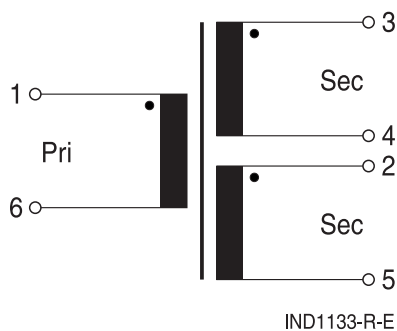
- Manufacturer, middle block of ordering code, date code, pin1 marker

**Delivery mode and packing unit**

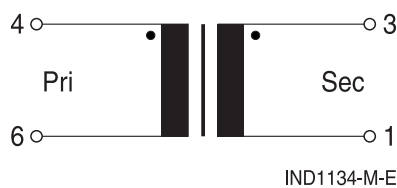
- 16-mm blister tape, 330 mm Ø reel
- Packing unit: 850 packages/reel

**Schematic**

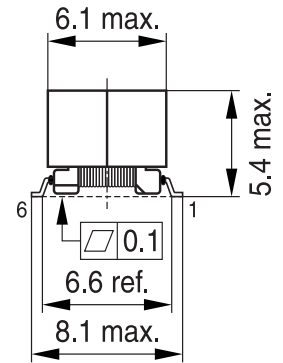
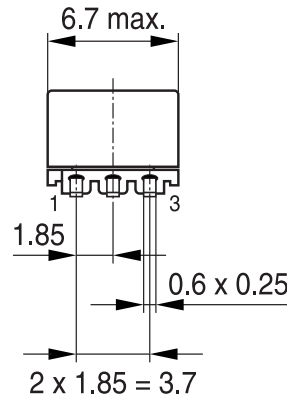
- Figure A



- Figure B

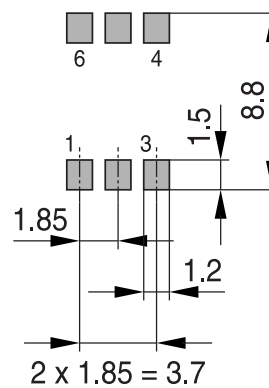


**Dimensional drawings**



IND1139-Q

**Layout recommendation (Top view)**



IND1135-P-E

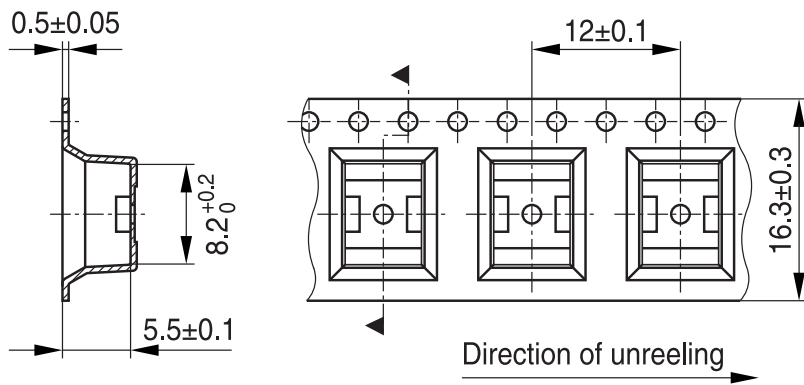
**Technical data and measuring conditions**

Main inductance L	100 kHz, 100 mV
Stray inductance Primary $L_{stray}$	100 kHz, 100 mV, secondary shorted
Resistance $R_{DC}$	Measured at +25 °C
Resistance to reflow soldering heat	In accordance with JEDEC J-STD 20D +245 °C for 10 seconds (2 cycles)
Capacitance $C_i$ Pri-Sec	100 kHz, 100 mV
Resonance frequency $f_{res}$	Primary winding
Test voltage $V_{test}$	DC values
Operating temperature range	-40 °C ... +125 °C

**Characteristics and ordering codes**

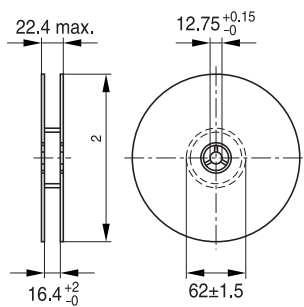
$L_{min}$	Figure	Turns ratio pri-sec	$L_{stray,max}$ □H	$R_{DC-pri,max}$ □	$R_{DC-sec,max}$ □	$C_{i,max}$ pF	$f_{res,min}$ MHz	$V_{test}$ V DC	$E*dt$ □Vs	Ordering code
300	A	2.5:1:1	0.9	1.8	0.3	27	2.6	1500	23.8	B82804A0304A225
317	A	2:1:1	0.6	1.6	0.45	22	2	1500	24.5	B82804A0324A220
264	A	1:1:1	0.3	1.5	1.5	95	2.9	1500	22.4	B82804A0264A210
350	B	1:1	1	1	0.65	75	1.2	1500	25.8	B82804A0354A110
690	B	1.5:1	2.5	1.65	0.86	27	0.7	1500	40.8	B82804A0694A115
473	B	2.5:1	1.5	1.5	0.3	25	1.7	1500	30.6	B82804A0474A125

**Blister tape detail**



IND1136-B-E

**Reel size and detail**



IND1137-N



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