




# THROUGH HOLE CURRENT SENSE TRANSFORMERS

VDE Approved



-  Meets IEC950 insulation requirements
-  3750V<sub>RMS</sub> primary to secondary breakdown voltage
-  Frequency range 10kHz to 200kHz

## Electrical Specifications @ 25°C — Operating Temperature -40°C to 130°C

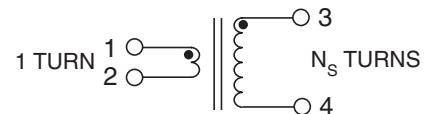
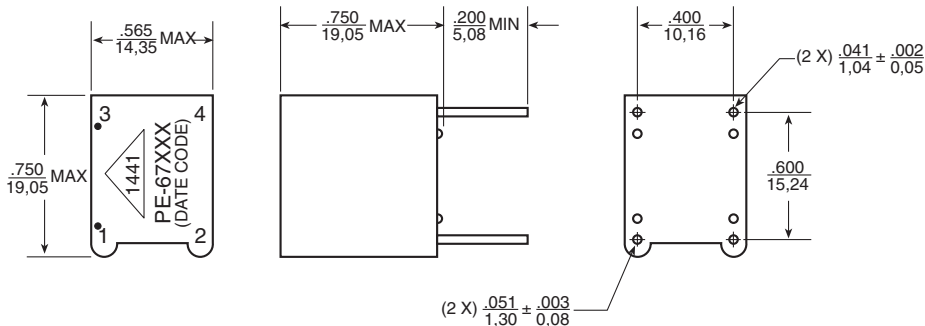
Part Number	I <sub>PK</sub> (Amps)	R <sub>T</sub> (Ω)	Drop (%)	K <sub>V</sub> (Volt/Amp)	L <sub>S</sub> (mH MIN)	DCR R <sub>S</sub> (Ω MAX)	Turns (N <sub>S</sub> ± 1%)	K <sub>B</sub>	K <sub>CL</sub>	R <sub>EQ</sub> (mΩ)
PE-67050	35	15	2.4	0.30	5.0	0.70	50	.269x10 <sup>6</sup>	51.2x10 <sup>-6</sup>	.95
PE-67100	37	56	2.2	0.56	20	1.40	100	.0671x10 <sup>6</sup>	1.56x10 <sup>-6</sup>	.85
PE-67200	38	200	2.0	1.00	80	4.50	200	.0168x10 <sup>6</sup>	47.3x10 <sup>-9</sup>	.82
PE-67300	37	510	2.2	1.70	180	11.0	300	.00746x10 <sup>6</sup>	6.13x10 <sup>-9</sup>	.84

### NOTES:

- These current sense transformers have a 1 turn primary winding, secondary turns (N<sub>S</sub>) as indicated in the table, and a 130°C insulation system.
- The reference values are for unipolar operation, 50kHz, 40% duty factor, and an estimated 55°C temperature rise.
- The maximum useable peak sense current (I<sub>PK</sub>) depends on temperature rise or core saturation, which should be evaluated for the operating conditions.
- These Current Sense Transformers are recommended for switch mode power supply applications, unipolar or bipolar, operating at frequencies from 10kHz to 200kHz.
- The maximum recommended operating flux density (B<sub>OP</sub>) is 2000 gauss to prevent saturation at an operating temperature of 105°C.
- The core loss factor (K<sub>CL</sub>) is valid from 10kHz to 200kHz at 105°C.
- The terminating resistor (R<sub>T</sub>) may be varied to adjust operating flux (B<sub>OP</sub>), droop, or scale factor (K<sub>V</sub>).
- The scale factor (K<sub>V</sub>) is proportional to the terminating resistor (R<sub>T</sub>) and is equal to 1 volt/amp when R<sub>T</sub>=N<sub>S</sub>.
- The secondary inductance (L<sub>S</sub>) is measured at 15kHz and .5V for PE-67050, 1V for PE-67100, 2V for PE-67200 and 3V for PE-67300.
- To order RoHS compliant part, add the suffix "NL" to the part number (i.e. PE-67050 becomes PE-67050NL).

## Mechanical

## Schematic



Parts per package ..... 80

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are ±  $\frac{.005}{0.13}$

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