Through Hole Current Sense Transformers

VDE Approved

- *Meets IEC950 insulation requirements*
- *3750Vrms primary to secondary breakdown voltage*
- *Frequency range 10kHz to 200kHz*

Electrical Specifications @ 25°C – Operating Temperature -40°C to +130°C

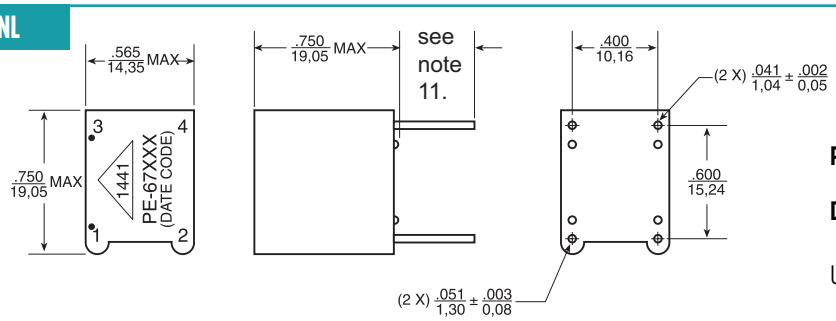
Part Number	I_{PK} (Amps)	R_T (Ω)	Droop (%)	K_{VI} (Volt/Amp)	L_S (mH MIN)	DCR R_S (Ω MAX)	Turns (Ns ± 1%)	K_B	K_{CL}	R_{EQ} (mΩ)
PE-67050	35	15	2.4	0.30	5.0	0.70	50	$.269x10^{6}$	$51.2x10^{-6}$	.95
PE-67100	37	56	2.2	0.56	20	1.40	100	$.0671x10^{6}$	$1.56x10^{-6}$	.85
PE-67200	38	200	2.0	1.00	80	4.50	200	$.0168x10^{6}$	$47.3x10^{-9}$	.82
PE-67300	37	510	2.2	1.70	180	11.0	300	$.00746x10^{6}$	$6.13x10^{-9}$	.84

NOTES:

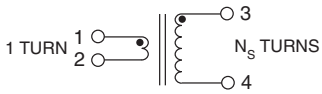
1. These current sense transformers have a 1 turn primary winding, secondary turns (Ns) as indicated in the table, and a 130°C insulation system.
2. The reference values are for unipolar operation, 50kHz, 40% duty factor, and an estimated 55°C temperature rise.
3. The maximum useable peak sense current (I_{PK}) depends on temperature rise or core saturation, which should be evaluated for the operating conditions.
4. These Current Sense Transformers are recommended for switch mode power supply applications, unipolar or bipolar, operating at frequencies from 10kHz to 200kHz.
5. The maximum recommended operating flux density (B_{OP}) is 2000 gauss to prevent saturation at an operating temperature of 105°C.
6. The core loss factor (K_{CL}) is valid from 10kHz to 200kHz at 105°C.
7. The terminating resistor (R_T) may be varied to adjust operating flux (B_{OP}), droop, or scale factor (K_{VI}).
8. The scale factor (K_{VI}) is proportional to the terminating resistor (R_T) and is equal to 1 volt/amp when R_T=N_S.
9. The secondary inductance (L_S) is measured at 15kHz and .5V for PE-67050, 1V for PE-67100, 2V for PE-67200 and 3V for PE-67300.
10. To order RoHS compliant part, add the suffix "NL" to the part number (i.e. PE-67050 becomes PE-67050NL).
11. Pin Length for PE-67100 and PE-67100NL is equal to 0.146" +/- 0.16" (3.7mm +/- 0.4mm) for all other PNs pin length is equal to 0.200" Min (5.08mm Min).

Mechanicals

PE-65612NL



Schematics



Parts per package 80

Dimensions: Inches / mm

Unless otherwise specified, all tolerances are ± .005 / 0,13

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