

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 (N _S ± 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

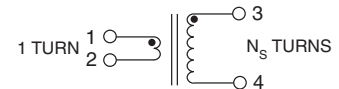
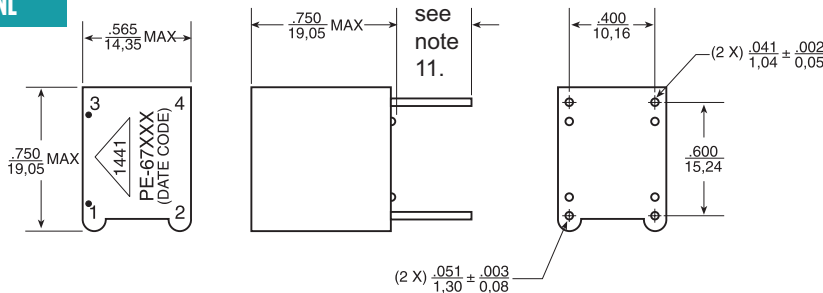
NOTES:

- These current sense transformers have a 1 turn primary winding, secondary turns (N_S) 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_{PK}) 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_{OP}) is 2000 gauss to prevent saturation at an operating temperature of 105°C.
- The core loss factor (K_{CL}) is valid from 10kHz to 200kHz at 105°C.
- The terminating resistor (R_T) may be varied to adjust operating flux (B_{OP}), droop, or scale factor (K_{VI}).
- 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.
- 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.
- To order RoHS compliant part, add the suffix "NL" to the part number (i.e. PE-67050 becomes PE-67050NL).
- 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

Schematics

PE-65612NL



Parts per package80

Dimensions: Inches
mm

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

For More Information

Pulse Worldwide Headquarters
12220 World Trade Drive
San Diego, CA 92128
U.S.A.

Pulse Europe
Einsteinstrasse 1
D-71083 Herrenberg
Germany

Pulse China Headquarters
B402, Shenzhen Academy of
Aerospace Technology Bldg.
10th Kejianan Road
High-Tech Zone
Nanshan District
Shenzhen, PR China 518057
Tel: 86 755 33966678
Fax: 86 755 33966700

Pulse North China
Room 2704/2705
Super Ocean Finance Ctr.
2067 Yan An Road West
Shanghai 200336
China

Tel: 86 21 62787060
Fax: 86 2162786973

Pulse South Asia
135 Joo Seng Road
#03-02
PM Industrial Bldg.
Singapore 368363

Tel: 65 6287 8998
Fax: 65 6287 8998

Pulse North Asia
3F, No. 198
Zhongyuan Road
Zhongli City
Taoyuan County 320
Taiwan R. O. C.
Tel: 886 3 4356768
Fax: 886 3 4356823 (Pulse)
Fax: 886 3 4356820 (FRE)

Tel: 858 674 8100
Fax: 858 674 8262

Tel: 49 7032 78060
Fax: 49 7032 7806 135

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