CT05 Series

Compact THT Current Sense Transformers





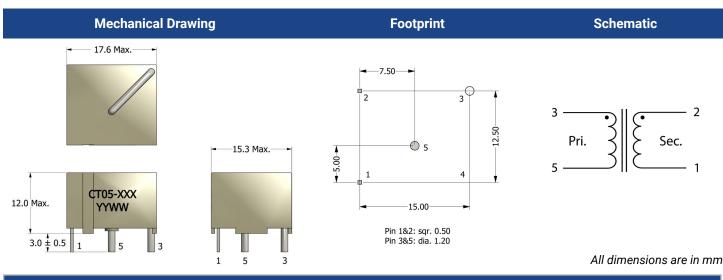
- Height: 12.0mm (Max)
- Footprint: 17.6mm (Max) x 15.3mm (Max)
- Current Rating: Up to 25A
- Full Selection of Turns Ratios

APPLICATIONS

DC/DC Converters AC/DC Converters

PACKAGING

Pieces/Tray: 121 Trays/Box: 10 Pieces/Box: 1210



Electrical Specifications @ 25°C - Operating Temperature Range ¹ : -40°C to +130°C							
Part Number	Turns Ratio <i>(TR)</i>	Secondary Inductance ² (mH, Min)	Secondary DCR (Ω, Max)	Current Rating ⁴ (A, Max)	SRF ⁵ (2-1) (kHz, Typ)	ET Product ⁸ (V-µs, Max)	Hi-Pot (V _{AC})
CT05-050	1:50	4.7	0.5	25	637	175	4000
CT05-100	1:100	18.0	2.0	25	261	350	4000
CT05-200	1:200	76.0	4.5	25	59	700	4000
CT05-500	1:500	470.0	16.0	25	16	1750	4000
CT05-1000	1:1000	1900.0	50.0	25	8	3500	4000

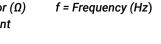
- 1. Operating Temp. Range: The combination of ambient temperature and temperature rise.
- 2. Secondary Inductance: Tested at 10kHz, 0.1 V_{RMS}. CT05-1000 tested @ 1kHz, 0.1Vrms.
- 3. Primary DCR (3-5): 0.6 mΩ (Ref)
- 4. Current Rating: Peak current (50% duty cycle) through primary (3-5) to cause 40°C temperature rise at 25°C ambient.
- 5. SRF values are for reference only.
- 6. Flammability Standard: Meets UL 94V-0.
- 7. Terminating Resistor (R_B): To calculate the value use the formula, $R_{B} = E_{O}TR/I_{P}$

8. ET Product: The maximum ET is based upon a flux density of 1175 Gauss at 25°C. Suitable for bipolar applications only.

$$ET = E_0/2f$$
$$E_0 = I_P R_B/TR$$

where as,

 E_0 = Output voltage (V) TR = Turns Ratio $R_{\rm B}$ = Term. Resistor (Ω) I_P = Primary Current





Specifications subject to change without prior notice.