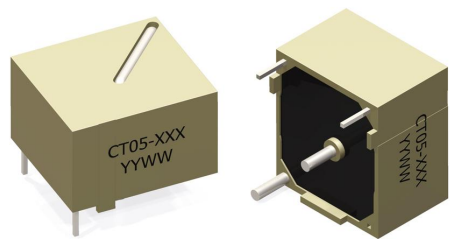


CT05 Series

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

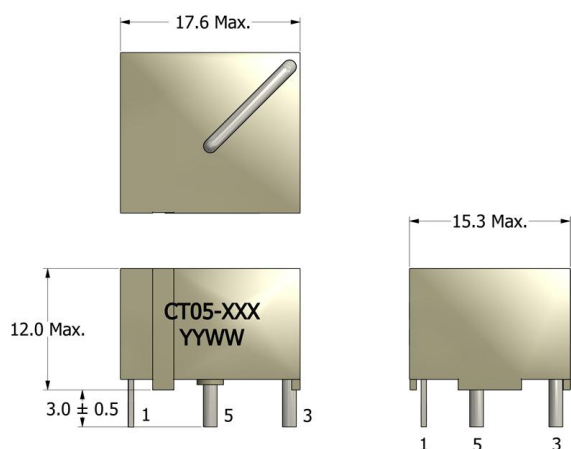
APPLICATIONS

DC/DC Converters
AC/DC Converters

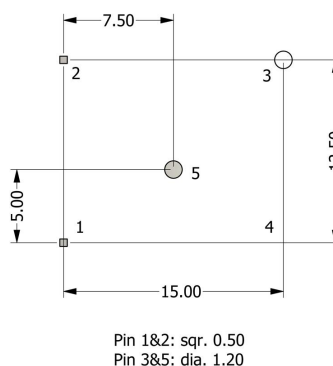
PACKAGING

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

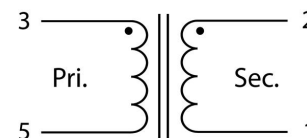
Mechanical Drawing



Recommended PCB Layout



Schematic



All dimensions are in mm

Electrical Specifications @ 25°C - Operating Temperature Range¹: -40°C to +130°C

Part Number	Turns Ratio (TR)	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

- Operating Temp. Range:** The combination of ambient temperature and temperature rise.
- Secondary Inductance:** Tested at 10kHz, 0.1 V_{RMS}. CT05-1000 tested @ 1kHz, 0.1Vrms.
- Primary DCR (3-5):** 0.6 mΩ (Ref)
- Current Rating:** Peak current (50% duty cycle) through primary (3-5) to cause 40°C temperature rise at 25°C ambient.
- SRF values are for reference only.
- Flammability Standard:** Meets UL 94V-0.
- Terminating Resistor (R_B):** To calculate the value use the formula, $R_B = E_0 TR / I_P$
- 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
 $R_B =$ Term. Resistor (Ω) $f =$ Frequency (Hz)
 $I_P =$ Primary Current



Specifications subject to change without prior notice.

TEL.: 800-729-2099

www.icecomponents.com

August 11 2021 - CT05 Series