CT10 Series

THT Current Sense Transformers





- Height: 15.8mm (Max)
- Footprint: 14.5mm (Max) x 13.0mm (Max)
- Current Rating: Up to 40A
- Full Selections of Turns Ratios

APPLICATIONS

DC/DC Converters AC/DC Converters

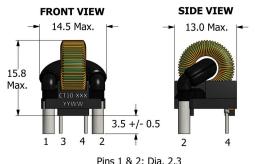
PACKAGING

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

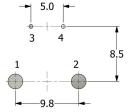
Mechanical Drawing

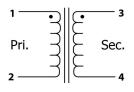
Recommended PCB Layout

Schematic









All dimensions are in mm

Electrical Specifications @ 25°C - Operating Temperature 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 (RMS/Peak) (A, Max)	SRF ⁵ (3-4) (kHz, Typ)	ET Product ⁸ (V-µs, Max)	Hi-Pot (V _{AC})
CT10-100	1:100	14	1.2	40/45	534	580	3000
CT10-200	1:200	55	4.0	40/80	96	1160	3000
CT10-300	1:300	120	10.0	40/80	97	1740	3000
CT10-400	1:400	210	27.0	40/80	93	2320	3000

- 1. Operating Temp. Range: The combination of ambient temperature and temperature rise.
- 2. Secondary Inductance: Tested at 10kHz, 0.1 V_{RMS}.
- 3. **Primary DCR (1-2):** $0.2 \text{ m}\Omega$ (Ref)
- 4. Current Rating: Peak current (50% duty cycle) through primary (1-2) 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, $R_B = E_0 TR/I_P$

8. ET Product: The maximum ET is based upon a flux density of 3700 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)

f = Frequency (Hz)

I_P = Primary Current



Specifications subject to change without prior notice.

TEL.: 800-729-2099 www.icecomponents.com August 11 2021 - CT10 Series

Mouser Electronics

Authorized Distributor

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ICE Components: CT10-100 CT10-300