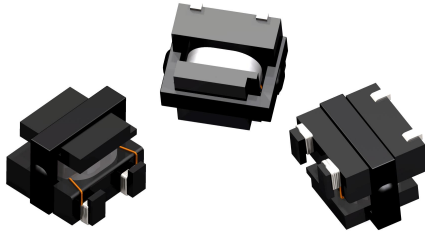


CT02 Series

Smallest SMT Current Sense Transformers



- Height: 4.6mm (Max)
- Footprint: 6.5mm (Ref) x 6.0mm (Max)
- Current Rating: Up to 18A
- Hi-Pot tested at 1,500 V_{AC}
- Patent Pending

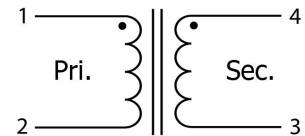
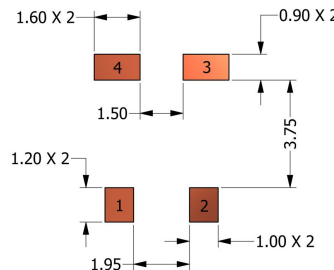
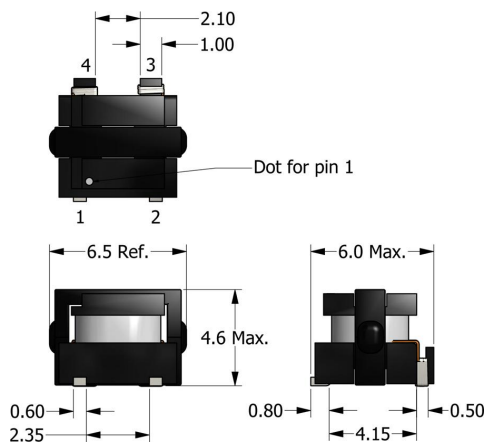
APPLICATIONS

- DC/DC Converters
- AC/DC Converters
- POL Converters

PACKAGING

- Reel Diameter: 13"
- Reel Width: 16 mm
- Pieces/Reel: 1000

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 (4-3) (MHz, Typ)	ET Product ⁸ (V-μs, Max)	Hi-Pot (V _{AC})
CT02-050	1:50	0.44	1.25	15	3.8	70	1500
CT02-100	1:100	1.80	4.80	18	1.8	140	1500
CT02-150	1:150	4.00	15.00	18	0.9	210	1500
CT02-200	1:200	7.10	25.00	18	0.9	280	1500
CT02-250	1:250	11.10	37.20	18	0.7	350	1500

- Operating Temp. Range:** The combination of ambient temperature and temperature rise.
- Secondary Inductance:** Tested at 10kHz, 0.1 V_{RMS}.
- Primary DCR (1-2):** 1.0 mΩ (Ref)
- Current Rating:** Peak current (50% duty cycle) through primary (1-2) 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, $R_B = E_o TR / I_p$

- ET Product:** The maximum ET is based upon a flux density of 3700 Gauss at 25°C. Suitable for bipolar applications only.

$$ET = E_o / 2f$$

$$E_o = I_p R_B / TR$$

where as,

$$E_o = \text{Output voltage (V)} \quad TR = \text{Turns Ratio}$$

$$R_B = \text{Term. Resistor (Ω)} \quad f = \text{Frequency (Hz)}$$

$$I_p = \text{Primary Current}$$



Specifications subject to change without prior notice.

TEL.: 800-729-2099

www.icecomponents.com

August 11 2021 - CT02 Series

Mouser Electronics

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