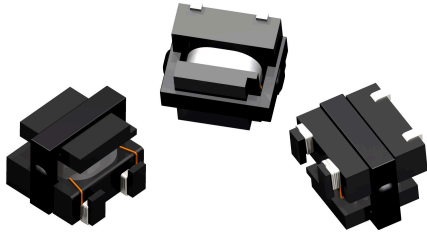


# CT02 Series

## 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<sub>AC</sub>
- Patent Pending

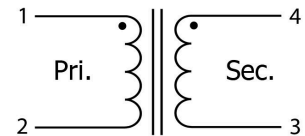
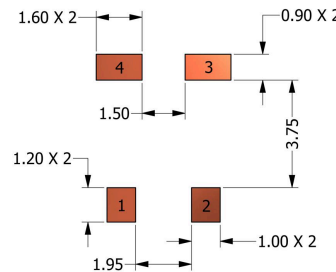
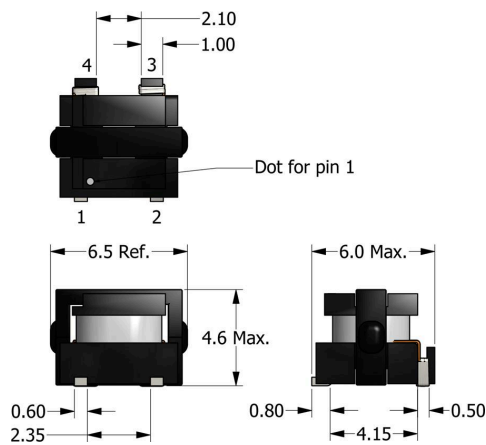
### APPLICATIONS

- 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 Range<sup>1</sup>: -40°C to +130°C

Part Number	Turns Ratio (TR)	Secondary Inductance <sup>2</sup> (mH, Min)	Primary DCR (1-2) (mΩ, Ref)	Secondary DCR (4-3) (Ω, Max)	Current Rating <sup>3</sup> (A, Max)	SRF <sup>4</sup> (4-3) (MHz, Typ)	ET Product <sup>7</sup> (V-μs, Max)	Hi-Pot (V <sub>AC</sub> )
CT02-050	1:50	0.44	1.00	1.25	15	3.8	70	1500
CT02-100	1:100	1.80	1.00	4.80	18	1.8	140	1500
CT02-150	1:150	4.00	1.00	15.00	18	0.9	210	1500
CT02-200	1:200	7.10	1.00	25.00	18	0.9	280	1500
CT02-250	1:250	11.10	1.00	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<sub>RMS</sub>.
- 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<sub>B</sub>):** To calculate the value use the formula, R<sub>B</sub> = E<sub>0</sub>TR/I<sub>P</sub>

- 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,  

$$E_0 = \text{Output voltage (V)}$$

$$R_B = \text{Term. Resistor (Ω)}$$

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

$$TR = \text{Turns Ratio}$$

$$f = \text{Frequency (Hz)}$$



Specifications subject to change without prior notice.

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www.icecomponents.com

September 26 2024 - CT02 Series