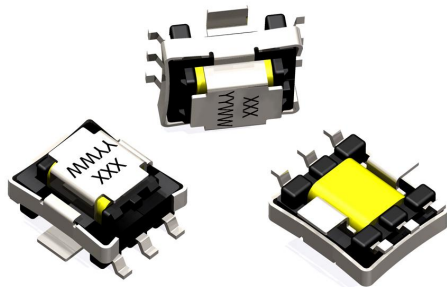


CT04 Series

Low-Profile SMT Current Sense Transformers



- Height: 4.10mm (Max)
- Footprint: 6.90mm (Max) x 8.13mm (Max)
- Current Rating: Up to 20A
- Full Selection of Turns Ratios
- Suitable for Pick & Place Applications
- Withstands Solder Reflow

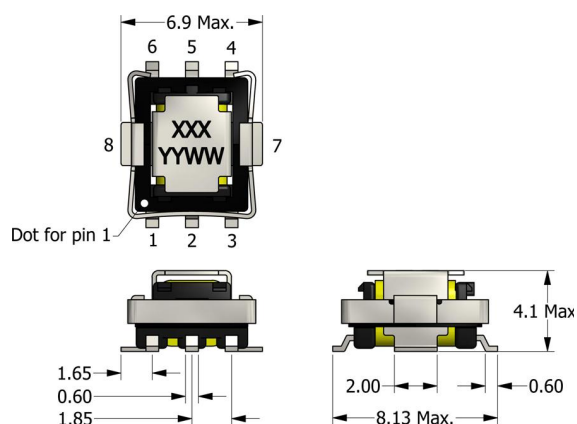
APPLICATIONS

DC/DC Converters
AC/DC Converters

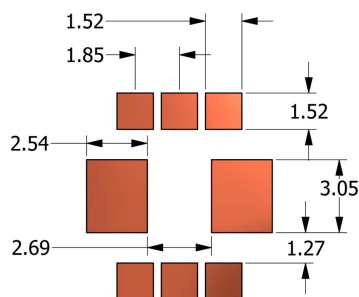
PACKAGING

Reel Diameter: 13"
Reel Width: 16 mm
Pieces/Reel: 1200

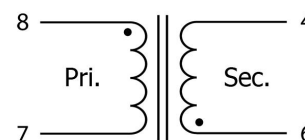
Mechanical Drawing



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 (μH, Min) | Secondary DCR (Ω, Max) | Current Rating ⁴ (A, Max) | SRF ⁵ (6-4) (MHz, Typ) | ET Product ⁸ (V-μs, Max) | Hi-Pot (V _{AC}) |
|-------------|------------------|---|------------------------|--------------------------------------|-----------------------------------|-------------------------------------|---------------------------|
| CT04-050 | 1:50 | 352 | 0.9 | 20 | 2.5 | 65 | 500 |
| CT04-070 | 1:70 | 690 | 1.7 | 20 | 1.5 | 90 | 500 |
| CT04-100 | 1:100 | 1400 | 3.0 | 20 | 1.0 | 130 | 500 |
| CT04-125 | 1:125 | 2200 | 5.0 | 20 | 1.0 | 160 | 500 |

- Operating Temp. Range:** The combination of ambient temperature and temperature rise.
- Secondary Inductance:** Tested at 10kHz, 1V_{RMS}.
- Primary DCR (8-7):** 0.4 mΩ (Ref)
- Current Rating:** Peak current (50% duty cycle) through primary (8-7) 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 3700 Gauss at 25°C. Suitable for bipolar applications only.

$$ET = E_0 / 2f$$

$$E_0 = I_P R_B / TR$$

where as,

$$E_0 = \text{Output voltage (V)} \quad TR = \text{Turns Ratio}$$

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

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

RoHS
COMPLIANT



CUSTOM
SOLUTIONS
AVAILABLE



Specifications subject to change without prior notice.

TEL.: 800-729-2099

www.icecomponents.com

April 11 2023 - CT04 Series