CT03 Series

Encapsulated THT Current Sense Transformers





- Height: 22.1mm (Max)
- Footprint: 10.2mm (Max) x 17.3mm (Max)
- Current Rating: Up to 25A
- Meets UL1950 and EN60950 Creepage/Clearance Spacing

APPLICATIONS

Feedback Control Overload Protection Load Drop or Shutdown Detection

PACKAGING

Pieces/Tray: 270 Trays/Box: 5 Pieces/Box: 1350

	Schematic				
Ø3.00 XXXX YYWW	9.9 ± 0.3 21.8 ± 0.3	Ø5.20	3	A Pri. Sec. 3 B Non-Center Tapped	
6.35 ± 0.3 Dot for pin 1	3 1 12.7 ± 0.3 Ø 0.80	6.35 ± 0.3	$3 + 1.0$ 12.7 ± 0.3	A 3 Sec. 3	
-17.0 ± 0.3	TYPE A	-17.0 ±	TYPE B	B 1 Center Tapped 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 ³ (A, Max)	SRF ⁴ (3-1) (kHz, Typ)	ET Product ⁷ (V-μs, Max)	Hi-Pot (V _{AC})			
CT03-050-B_	1:50	5	0.6	25	517	550	3750			
CT03-100-B_	1:100	20	1.3	25	225	1100	3750			
CT03-200-B_	1:200	80	4.5	25	52	2200	3750			
CT03-1000-A_	1:1000	1500	57.0	25	10	11000	3750			

- 1. **Operating Temp. Range:** The combination of ambient temperature and temperature rise.
- 2. Secondary Inductance: Tested @ 17.5KHz, $1V_{\text{RMS}}$, Series. CT03-1000-A is tested @ 1KHz, $1V_{\text{RMS}}$, Series.
- Current Rating: The primary current rating is for reference only and is limited by the current capacity of the customer-supplied primary conductor.
- 4. SRF values are for reference only.

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- 5. Flammability Standard: Meets UL 94V-0.
- 6. **Terminating Resistor (R_B):** To calculate the value use the formula, $R_B = E_0 TR/I_P$

P/N Designator Suffix for Secondary Winding:

C - Center Tapped N - Non-Center Tapped

7. **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_B = Term. Resistor (Ω)

f = Frequency (Hz)

I_P = Primary Current



Specifications subject to change without prior notice.

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