

## Overview

The CT Series Low Alternating Current Sensors can be used to detect very low current levels and for overcurrent protection in electronic appliances.

## Applications

Typical applications include overcurrent detection in microcontroller-based equipment, refrigerators, air conditioners, inductive heating, servo motors, inverters, UPSs and SMPS.

## Benefits

- High sensitivity
- High performance
- Compact and lightweight
- Mountable on printed circuit boards

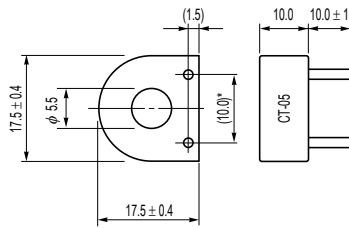


## Ordering Information

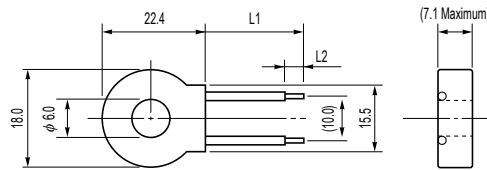
CT-	06-	50
Series	Shape Classification	Number of Turns
CT	05 06 07	Blank (CT-05 only) = 500 turns 50 = 500 turns 100 = 1,000 turns

## Dimensions in mm

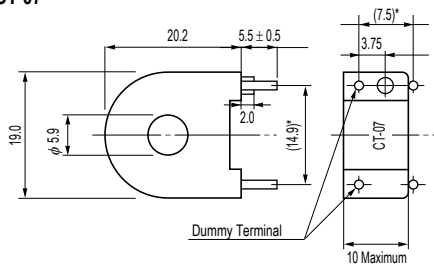
CT-05



CT-06



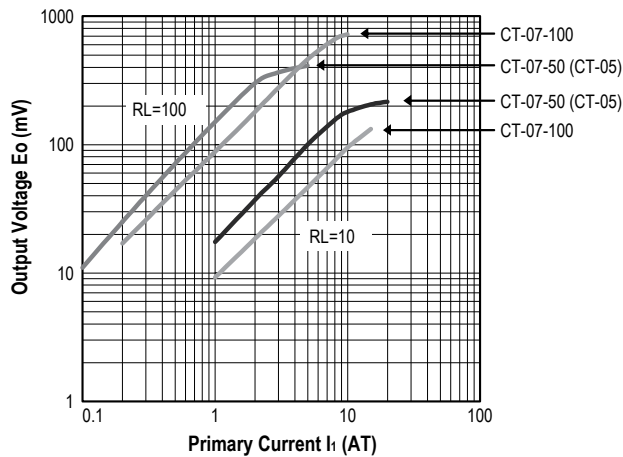
CT-07



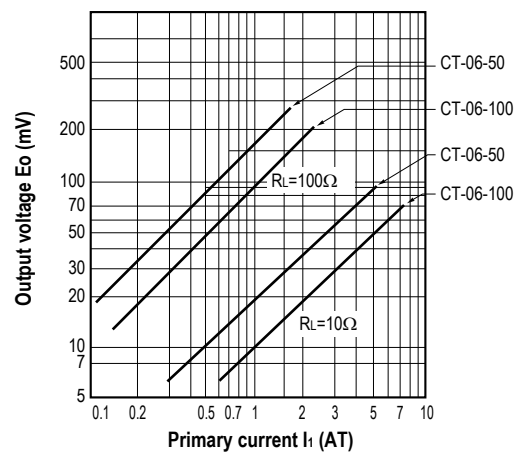
Product Name	L1 (±5)	L2 (±2)
CT-06-50	56.0	4.0
CT-06-100	85.0	5.0

## Output Characteristics

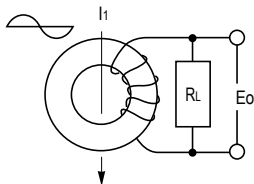
CT-05, CT-07 AC output characteristics (example)



CT-06 AC output characteristics (example)



## Measuring Circuit



$I_1$  : Primary current (AT)  
 $R_L$  : Load resistance ( $\Omega$ )  
 $E_o$  : Output voltage ( $mV_{rms}$ )

## Environmental Compliance

All CT sensors are RoHS compliant.

**Table 1 – Ratings & Part Number Reference**

Part Number	Turns	Core	Lead Wires	Material
CT-05	500	Permalloy	$\phi$ 0.6 mm pin connectors	Phenolic resin case, epoxy-filled
CT-06-50	500	Permalloy	Polyethylene sheath $\phi$ 0.5 mm single wire	Phenolic resin case, silicon-filled
CT-06-100	1,000	Permalloy	Polyethylene sheath $\phi$ 0.5 mm single wire	Phenolic resin case, silicon-filled
CT-07-50	500	Permalloy	$\phi$ 0.8 mm pin connectors	Phenolic resin case, epoxy-filled
CT-07-100	1,000	Permalloy	$\phi$ 0.8 mm pin connectors	Phenolic resin case, epoxy-filled

## Precautions

### Before Using Low Alternating Current Sensors

- Do NOT drop or apply any other mechanical stress.
- Preliminary study is required when heating by current conduction.
- Do NOT use the Low Alternating Current Sensors opened between secondary output terminals. Heat build-up in the magnetic core may occur, resulting in damages to the parts by melting of the coil.

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Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated or that other measures may not be required.