



### FEATURES

- RoHS compliant
- 50, 100, 200 & 300 turn variants
- Primary current rating 10A
- 20kHz-200kHz frequency range
- Centre tapped variants available

### DESCRIPTION

The 5600 series of current sense transformers are designed to monitor AC currents. They can be used for high frequency current sensing, for example in switched-mode power supplies, motor control and electronic lighting ballasts.

### SELECTION GUIDE

Order Code	Number of Turns	Inductance Min.	DC Resistance	Terminating Resistance to Produce 1V <sub>OUT</sub> /1A <sub>IN</sub>
	±1Turn	Pins 1&3	Pins 1&3, Ω	Ω
<b>56050C</b>	50	4.5mH @1V, 50kHz	0.133 - 0.199	50
<b>56100C</b>	100	18mH @1V, 50kHz	0.93 - 1.40	100
<b>56200C</b>	200	72mH @1V, 10kHz	1.87 - 2.81	200
<b>56300C</b>	300	160mH @1V, 10kHz	5.73 - 8.59	300
<b>56T100C</b>	100CT	18mH @1V, 50kHz	0.93 - 1.40	100
<b>56T200C</b>	200CT	72mH @1V, 10kHz	1.87 - 2.81	200
<b>56T300C</b>	300CT	160mH @1V, 10kHz	5.73 - 8.59	300

### ABSOLUTE MAXIMUM RATINGS

Operating free air temperature range	-40°C to 85°C
Storage temperature range	-40°C to 125°C

### SOLDERING INFORMATION<sup>1</sup>

Peak wave solder temperature	300°C for 10 seconds
Pin finish	Tin

### TECHNICAL NOTES

#### ISOLATION VOLTAGE

All 5600 current sense transformers are tested at 500Vdc for a minimum of 1 second during our standard test procedure.

In addition, as part of our qualification process carried out prior to product launch, the 5600 series demonstrated no isolation breakdown at 10kVdc or 6kVac with a bare conductor as the primary winding. Whilst this does not imply these parts are designed for environments where such high voltages may be present, it does demonstrate the level of isolation voltage these products are able to withstand. Full mains safety isolation can be achieved with appropriately insulated wire on the primary winding.



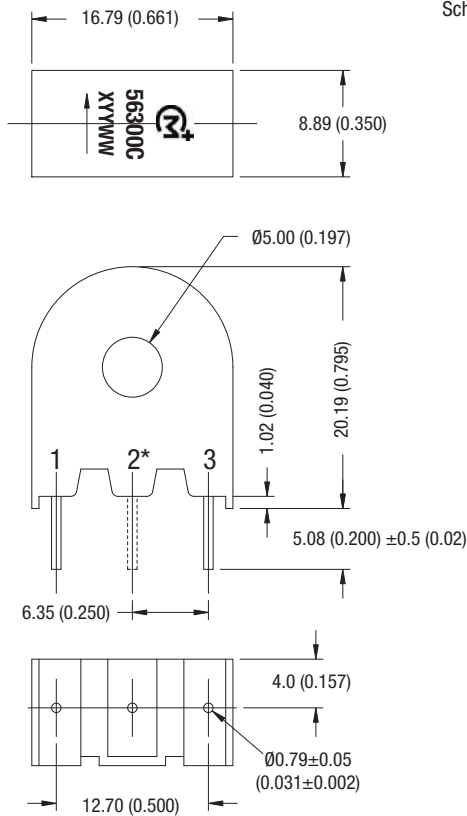
For full details go to  
[www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)

Specifications typical at T<sub>A</sub> = 25°C

<sup>1</sup> For further information, please visit [www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)

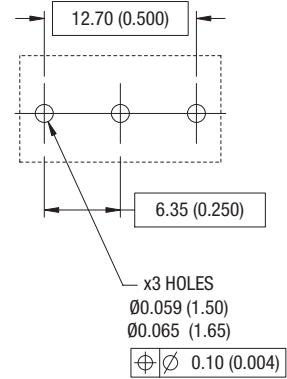
**PACKAGE SPECIFICATIONS**

**MECHANICAL DIMENSIONS**



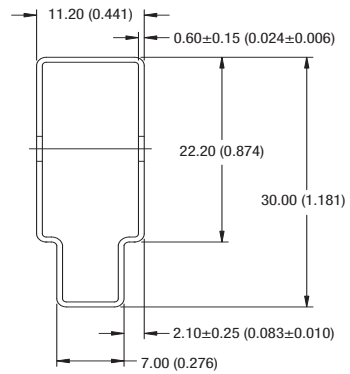
Package weight: 5.7g Typ.  
 \*Pin 2 is fitted on 56TXXX variants only.  
 Arrow designates winding direction referenced to inner core surface.  
 Unless otherwise stated, all dimensions in mm (inches)  $\pm 0.25$  (0.010).

**RECOMMENDED FOOTPRINT DETAILS**



Unless otherwise stated, all dimensions in mm (inches)  $\pm 0.25$  (0.010).

**TUBE OUTLINE DIMENSIONS**



Tube length: 475  $\pm 2$  [18.701  $\pm$  0.079]  
 Unless otherwise stated, all dimensions in mm (inches)  $\pm 0.25$  (0.010).  
 Tube quantity: 25  
 Tube material: Antistatic coated clear PVC

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Unless otherwise stated in the datasheet, all products are designed for standard commercial and industrial applications and NOT for safety-critical and/or life-critical applications.

Particularly for safety-critical and/or life-critical applications, i.e. applications that may directly endanger or cause the loss of life, inflict bodily harm and/or loss or severe damage to equipment/property, and severely harm the environment, a prior explicit written approval from Murata is strictly required. Any use of Murata standard products for any safety-critical, life-critical or any related applications without any prior explicit written approval from Murata shall be deemed unauthorised use.

These applications include but are not limited to:

- Aircraft equipment
- Aerospace equipment
- Undersea equipment
- Power plant control equipment
- Medical equipment
- Transportation equipment ( automobiles, trains, ships, etc.)
- Traffic signal equipment
- Disaster prevention / crime prevention equipment
- Data Processing equipment

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