

5600 Series

10A Current Sensing Transformers



- 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 Range	DC Resistance	Terminating Resistance to Produce 1Vout/1Ain
	±1Turn	Pins 1&3	Pins 1&3, Ω	Ω
56050C	50	5.00 - 9.30mH @1V, 50kHz	0.133 - 0.199	50
56100C	100	20.0 - 37.0mH @1V, 50kHz	0.93 - 1.40	100
56200C	200	80.0 - 150mH @1V, 10kHz	1.87 - 2.81	200
56300C	300	180 - 335mH @1V, 10kHz	5.73 - 8.59	300
56T100C	100CT	20.0 - 37.0mH @1V, 50kHz	0.93 - 1.40	100
56T200C	200CT	80.0 - 150mH @1V, 10kHz	1.87 - 2.81	200
56T300C	300CT	180 - 335mH @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 ¹				
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.

Specifications typical at $T_A = 25$ °C

1 For further information, please visit www.murata-ps.com/rohs









10A Current Sensing Transformers

PACKAGE SPECIFICATIONS MECHANICAL DIMENSIONS RECOMMENDED FOOTPRINT DETAILS Schematic 16.79 (0.661) 12.70 (0.500) 8.89 (0.350) 6.35 (0.250) Ø5.00 (0.197) x3 HOLES Ø0.065 (1.65) Ø0.059 (1.50) $| \oplus | \emptyset$ 0.10 (0.004) 1.02 (0.040) Unless otherwise stated, all dimensions in mm (inches) \pm 0.25 (0.010) TUBE OUTLINE DIMENSIONS 0.60±0.15 (0.024±0.006) 5.08 (0.200) 6.35 (0.250) 22.20 (0.874) 4.06 (0.160) 30.00 (1.181) Ø0.79±0.05 (0.031 ± 0.002) 12.70 (0.500) 2.10±0.25 (0.083±0.010) 7.00 (0.276) Package weight: 5.7Tvp Tube length: 475±2 [18.701±0.079] *Pin 2 is fitted on 56TXXXC variants only. Unless otherwise stated, all dimensions in mm (inches) \pm 0.25 (0.010). Arrow designates winding direction referenced to inner core surface. Tube quantity: 25 Unless otherwise stated, all dimensions in mm (inches) \pm 0.25 (0.010).

muRata Ps Murata Power Solutions

Murata Power Solutions, Inc.

11 Cabot Boulevard, Mansfield, MA 02048-1151 U.S.A. Tel: (508) 339-3000 (800) 233-2765 Fax: (508) 339-6356

www.murata-ps.com email: sales@murata-ps.com ISO 9001 REGISTERED

Murata Power Solutions, Inc. makes no representation that the use of its products in the circuits described herein, or the use of other technical information contained herein, will not infringe upon existing or future patent rights. The descriptions contained herein do not imply the granting of licenses to make, use, or sell equipment constructed in accordance therewith. Specifications are subject to change without notice.

USA: Mansfield (MA), Tel: (800) 233 2765, email: sales@murata-ps.com
Canada: Toronto, Tel: (866) 740 1232, email: toronto@murata-ps.com

UK: Milton Keynes, Tel: +44 (0)1908 615232, email: mk@murata-ps.com

France: Montigny Le Bretonneux, Tel: +33 (0)1 34 60 01 01, email: france@murata-ps.com

Germany: München, Tel: +49 (0)89-544334-0, email: ped.munich@murata-ps.com

Japan: Tokyo, Tel: 3-3779-1031, email: sales_tokyo@murata-ps.com Osaka, Tel: 6-6354-2025, email: sales_osaka@murata-ps.com

Website: www.murata-ps.jp

China: Shanghai, Tel: +86 215 027 3678, email: shanghai@murata-ps.com

 $Guangzhou, Tel: +86\ 208\ 221\ 8066, email: guangzhou@murata-ps.com$