5600 Series

10A Current Sensing Transformers



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Murata Power Solutions

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 1Vout/1AIN | | |
| | ±1Turn | Pins 1&3 | Pins 1&3, Ω | Ω | | |
| 56050C | 50 | 4.5mH @1V, 50kHz | 0.133 - 0.199 | 50 | | |
| 56100C | 100 | 18mH @1V, 50kHz | 0.93 - 1.40 | 100 | | |
| 56200C | 200 | 72mH @1V, 10kHz | 1.87 - 2.81 | 200 | | |
| 56300C | 300 | 160mH @1V, 10kHz | 5.73 - 8.59 | 300 | | |
| 56T100C | 100CT | 18mH @1V, 50kHz | 0.93 - 1.40 | 100 | | |
| 56T200C | 200CT | 72mH @1V, 10kHz | 1.87 - 2.81 | 200 | | |
| 56T300C | 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 INFORMATION¹

| Dia Galah | |
|----------------|--|
| Pin finish Tin | |

TECHNICAL NOTES

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 $T_A = 25^{\circ}C$

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



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PACKAGE SPECIFICATIONS MECHANICAL DIMENSIONS **RECOMMENDED FOOTPRINT DETAILS** Schematic - 16.79 (0.661) 12.70 (0.500) 10 •) 56300C XYYWW 2*O 8.89 (0.350) 30 6.35 (0.250) Ø5.00 (0.197) x3 HOLES Ø0.065 (1.65) Ø0.059 (1.50) 20.19 (0.795) ⊕Ø 0.10 (0.004) 1.02 (0.040) Unless otherwise stated, all dimensions in mm (inches) \pm 0.25 (0.010). 3 TUBE OUTLINE DIMENSIONS 11.20 (0.441) -0.60±0.15 (0.024±0.006) 5.08 (0.200) Į 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) ± 0.25 (0.010). Tube material: Antistatic coated clear PVC

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