

FEATURES

RoHS compliant

- Primary current rating 10A
- 20 to 200 turn variants
- Primary to secondary isolation 500Vrms
- 50kHz-500kHz frequency range
- Surface mount
- Industry-standard footprint
- UL94 V-0 package materials
- J-STD-020C reflow

PRODUCT OVERVIEW

The 5300 series of current sense transformers are designed to monitor AC currents. The transformers can be used for high frequency current sensing in applications such as switched-mode power supplies, motor control, and electronic lighting ballasts.



www.murata.com

10A Current Sensing Transformers

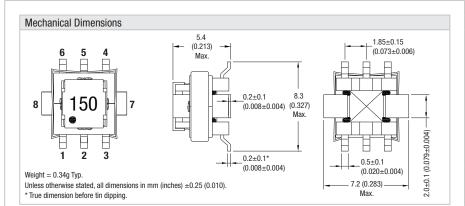
Order Code	Turns Ratio	Min. Secondary Inductance	Max. DC Resistance		Isolation	Terminating Resistance
			Primary (8-7)	Secondary (1-3)	Voltage ¹	to produce 1Vout/1Ain
		mH	mΩ	Ω	Vrms	Ω
53020C	1:20	0.08	7.0	0.55	500	20
53030C	1:30	0.18	7.0	0.85	500	30
53040C	1:40	0.32	7.0	1.10	500	40
53050C	1:50	0.50	7.0	1.75	500	50
53060C	1:60	0.72	7.0	2.20	500	60
53070C	1:70	0.98	7.0	4.50	500	70
53100C	1:100	2.00	7.0	5.60	500	100
53125C	1:125	3.00	7.0	7.50	500	125
53150C	1:150	4.50	7.0	17.50	500	150
53200C	1:200	8.00	7.0	34.00	500	200

ABSOLUTE MAXIMUM RATINGS

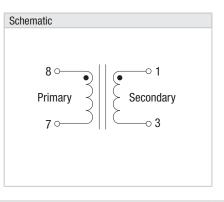
Operating free air temperature range Storage temperature range -40°C to 125°C -40°C to 155°C

SOLDERING INFORMATION ²	
Peak reflow solder temperature	250°C
Pin finish	Tin
Moisture sensitivity level	1

PACKAGE SPECIFICATIONS



Recommended Footprint Details 1.52 (0.060) -1.27 (0.050) 1.52 (0.060) -1.27 (0.050) 1.52 (0.060) -1.27 (0.050) 1.52 (0.060) -1.27 (0.050) 1.52 (0.060) -1.27 (0.050) 1.52 (0.060) -1.27 (0.050) 1.52 (0.060) -1.27 (0.050) 1.52 (0.060) -1.27 (0.050) 1.52 (0.073) -1.254 (0.1) 1.85 (0.073) -1.254 (0.1) Unless otherwise stated, all dimensions in mm (inches) ±0.25 (0.010).



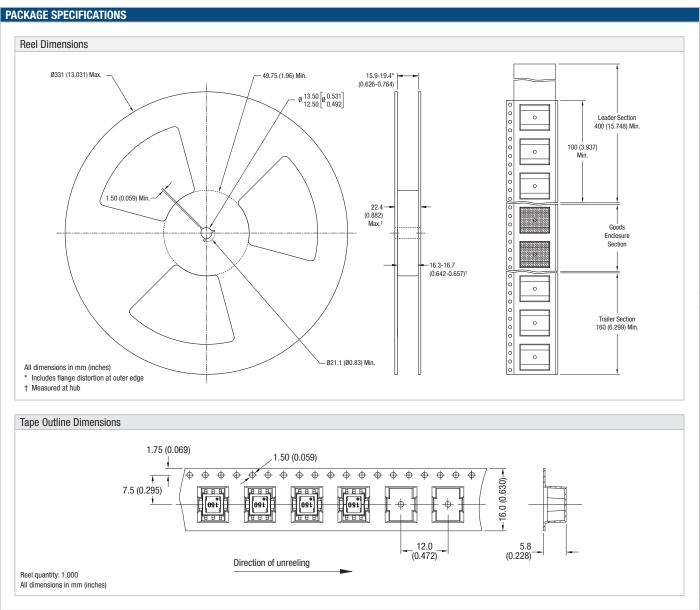
Specifications typical at $T_A = 25^{\circ}C$ 1 Flash tested for 1 second.

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

muRata Ps Murata Power Solutions

5300 Series

10A Current Sensing Transformers



www.murata.com

KMP_5300C_C01 Page 2 of 3

muRata Ps Murata Power Solutions

5300 Series

10A Current Sensing Transformers

DISCLAIMER

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

Murata makes no express or implied warranty, representation, or guarantee of suitability, fitness for any particular use/purpose and/or compatibility with any application or device of the buyer, nor does Murata assume any liability whatsoever arising out of unauthorised use of any Murata product for the application of the buyer. The suitability, fitness for any particular use/purpose and/or compatibility of Murata product with any application or device of the buyer remain to be the responsibility and liability of the buyer.

Buyer represents and agrees that it has all the necessary expertise to create and implement safeguards that anticipate dangerous consequences of failures, monitor failures and their consequences, lessen the likelihood of failures that might cause harm, and take appropriate remedial actions. Buyer will fully indemnify and hold Murata, its affiliated companies, and its representatives harmless against any damages arising out of unauthorised use of any Murata products in any safety-critical and/ or life-critical applications.

Remark: Murata in this section refers to Murata Manufacturing Company and its affiliated companies worldwide including, but not limited to, Murata Power Solutions.



This product is subject to the following <u>operating requirements</u> and the <u>Life and Safety Critical Application Sales Policy</u>: Refer to: https://www.murata.com/en-eu/products/power/requirements

Murata Power Solutions (Milton Keynes) Ltd. 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 described 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.

www.murata.com

KMP_5300C_C01 Page 3 of 3