

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.

SELECTION GUIDE

| Order Code | Turns Ratio | Min. Secondary Inductance mH | Max. DC Resistance | | Isolation Voltage ¹ Vrms | Terminating Resistance to produce 1V _{OUT} /1A _{IN} Ω |
|------------|-------------|---------------------------------|---------------------|----------------------|--|--|
| | | | Primary (8-7) mΩ | Secondary (1-3) 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

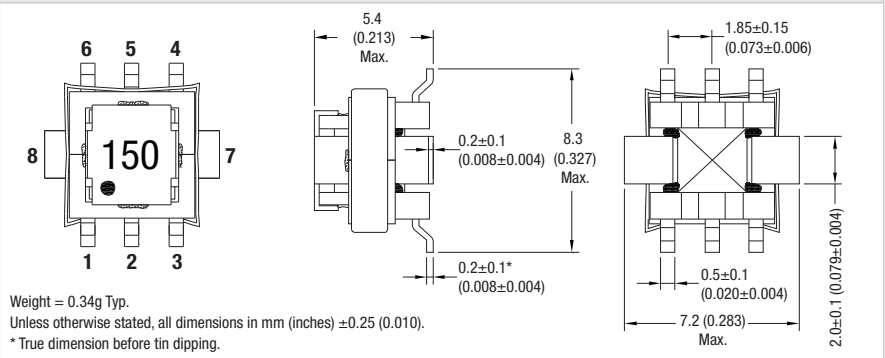
| | |
|--------------------------------------|----------------|
| Operating free air temperature range | -40°C to 125°C |
| Storage temperature range | -40°C to 155°C |

SOLDERING INFORMATION²

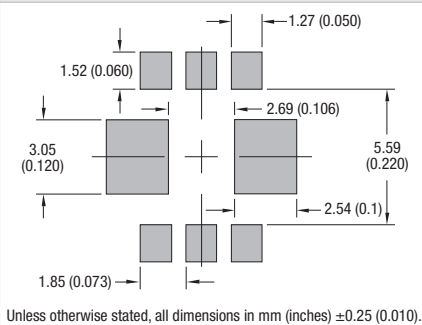
| | |
|--------------------------------|-------|
| Peak reflow solder temperature | 250°C |
| Pin finish | Tin |
| Moisture sensitivity level | 1 |

PACKAGE SPECIFICATIONS

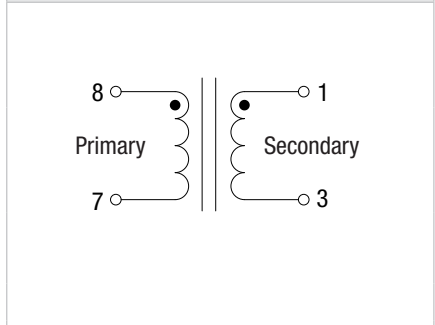
Mechanical Dimensions



Recommended Footprint Details



Schematic



Specifications typical at T_A = 25°C

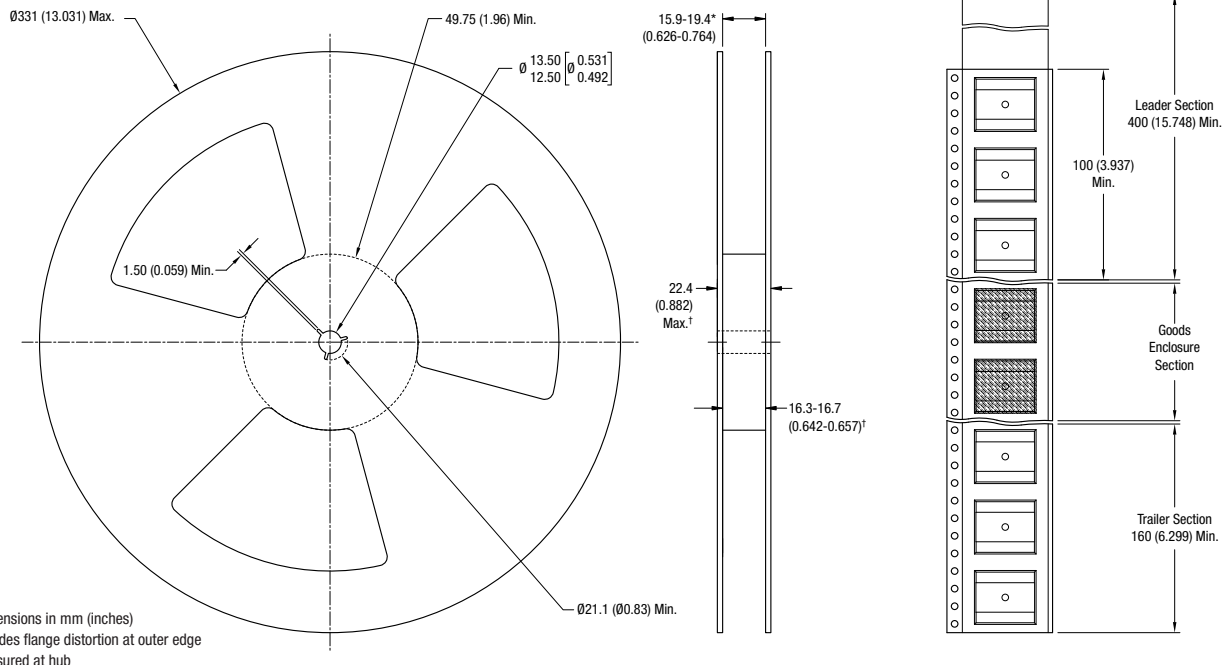
1 Flash tested for 1 second.

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



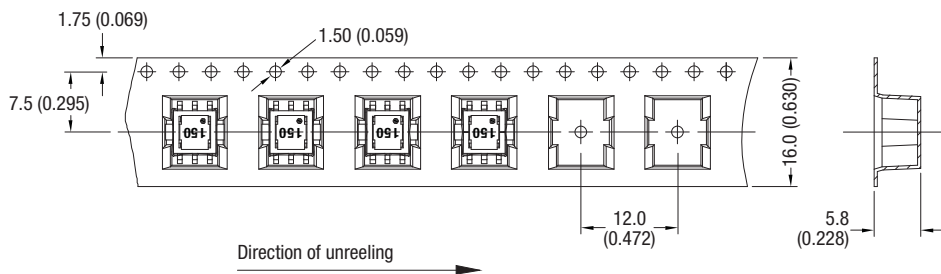
PACKAGE SPECIFICATIONS

Reel Dimensions



All dimensions in mm (inches)
 * Includes flange distortion at outer edge
 † Measured at hub

Tape Outline Dimensions



Reel quantity: 1,000
 All dimensions in mm (inches)

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