

FEATURES

- RoHS compliant
- 0.47mH to 4.7mH
- Surface mount
- Up to 0.7A I_{DC}
- UL94 V-0 package materials
- Compact size
- J-STD-020C reflow
- Backward compatible with Sn/Pb soldering systems

PRODUCT OVERVIEW

The 5000 series is a range of surface-mount common mode chokes designed to attenuate up to 100MHz common mode noise where line filtering is required, such as low current switching power supplies and telecom applications.



For full details go to
www.murata-ps.com/rohs

5000 Series

Surface Mount Common Mode Chokes

SELECTION GUIDE

Order Code	Inductance, L ¹ (0.1V @ 100kHz)		Leakage Inductance, L _L (0.1V @ 100kHz)		DC Resistance, R ¹	Current Rating ³ (series connection)	Isolation ⁴ V _{rms}
	Nom.	Tolerance	Typ.	Max.	Max.		
	mH	%	μH	μH	Ω		
50474C	0.47	+50%/-30%	0.2	0.40	0.30	700	500
50105C	1.00		0.2	0.40	0.30	700	
50225C	2.20		0.25	0.60	0.40	500	
50475C	4.70		0.4	0.80	0.70	400	

ABSOLUTE MAXIMUM RATINGS

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

SOLDERING INFORMATION²

Peak reflow temperature	250°C
Pin finish	Pure tin dip
Moisture sensitivity level ⁵	1

All specifications typical at T_A = 25°C

1 Measured between pins 1-4 or 2-3.

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

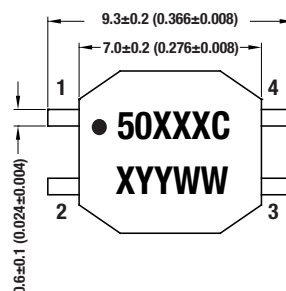
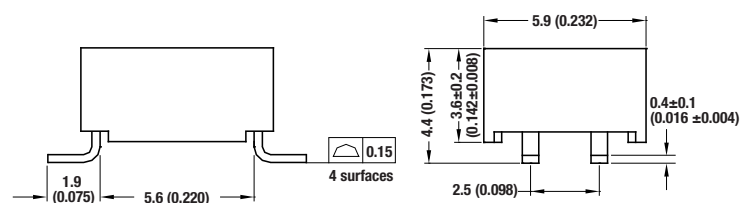
3 The maximum DC current occurs when its temperature rise reaches 40°C.

4 Flash tested for 1 second.

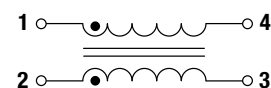
5 Representative samples of the product were subjected to the conditioning described in IPC/JEDEC J-STD-020C and passed electrical testing, package coplanarity and visual inspection which revealed no external cracks or changes in package body flatness.

PACKAGE SPECIFICATIONS

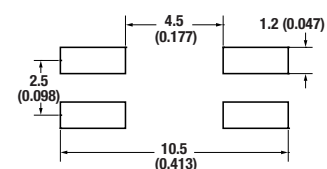
Mechanical Dimensions



Schematic



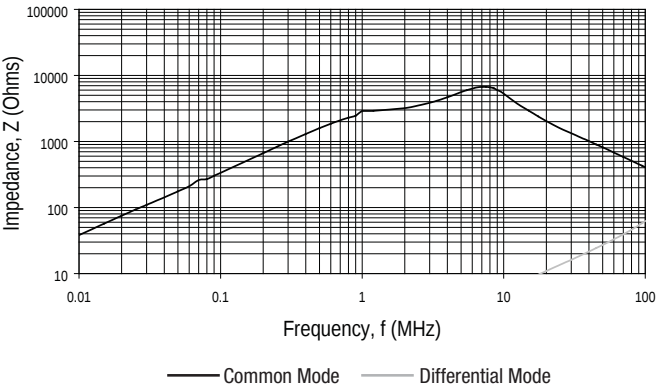
Recommended Footprint Details



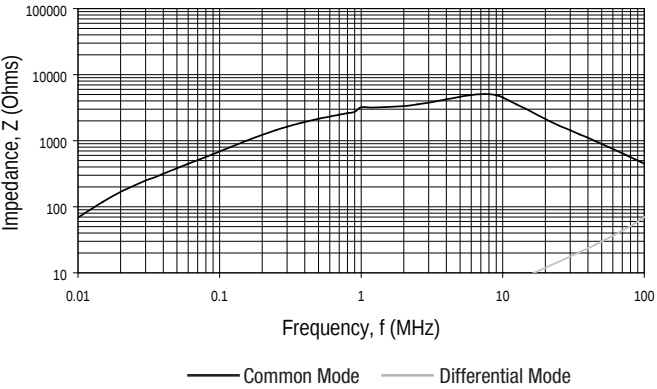
Unless otherwise stated, all dimensions in mm (inches) ±0.25 (0.010).
Package weight 0.30g Typ.

IMPEDANCE IN COMMON MODE AND DIFFERENTIAL MODE VS FREQUENCY

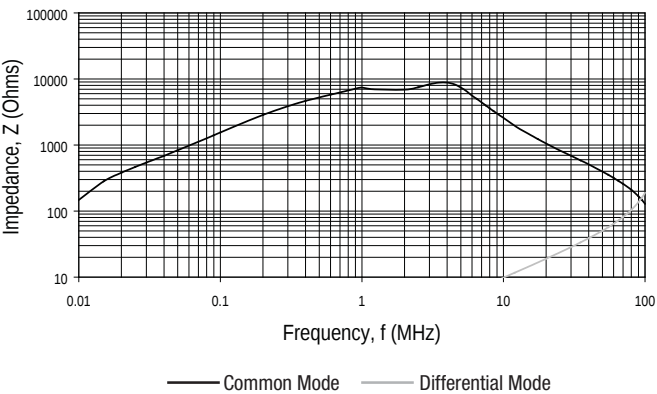
50474C



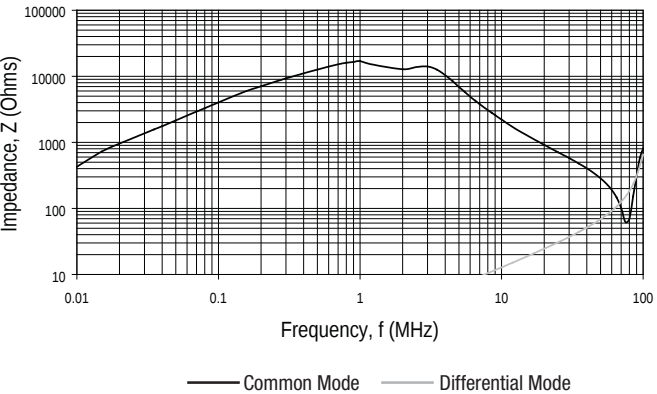
50105C



50225C

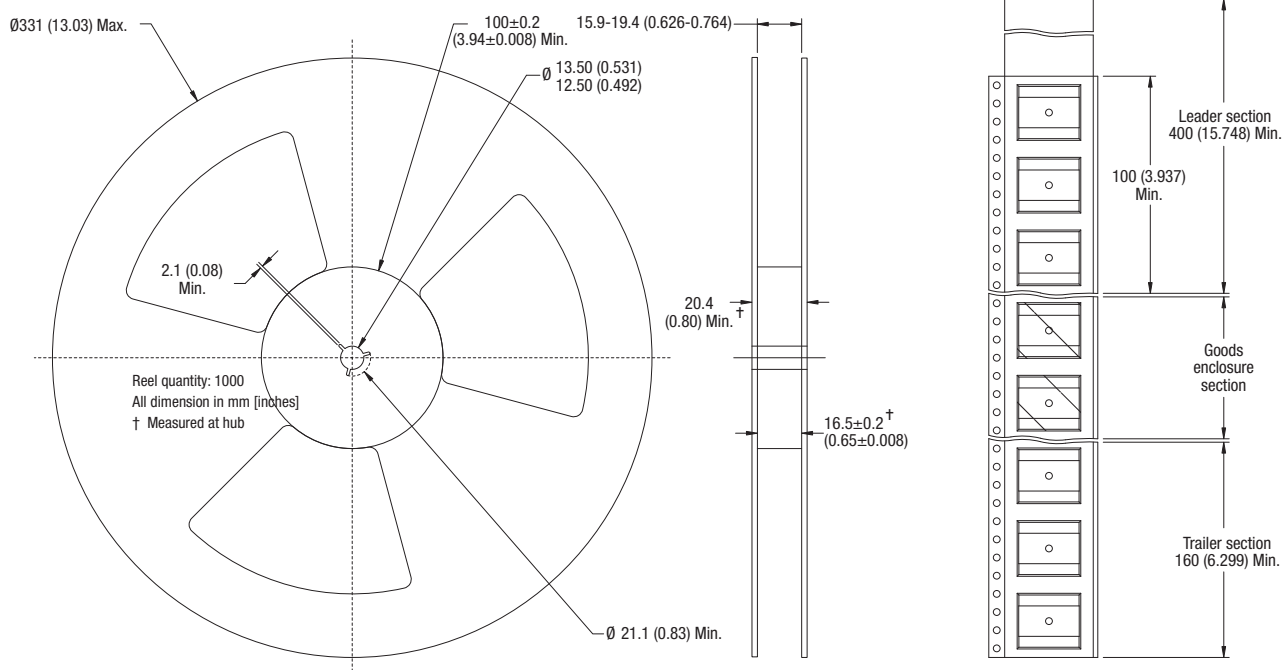


50475C

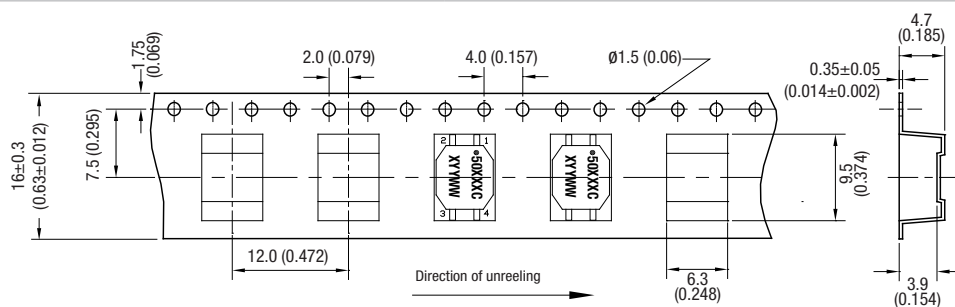


PACKAGE SPECIFICATIONS

Mechanical Dimensions



Tape Outline Dimensions



Unless otherwise stated, all dimensions in mm (inches) ± 0.1 (0.004).

DISCLAIMER

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- Undersea equipment
- Power plant control equipment
- Medical equipment
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- Traffic signal equipment
- Disaster prevention / crime prevention equipment
- Data Processing equipment

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