



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 SMC5000 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.

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
	Nom.	Tolerance	Typ.	Max.	Max.	mA _{DC}	V _{rms}
	mH	%	μH	μH	Ω		
SMC50474C	0.47	+50%/-30%	0.2	0.40	0.30	700	500
SMC50105C	1.00		0.2	0.40	0.30	700	
SMC50225C	2.20		0.25	0.60	0.40	500	
SMC50475C	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

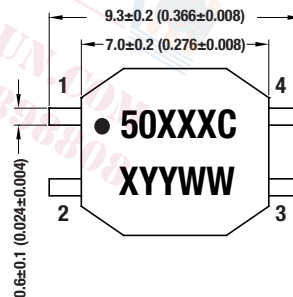
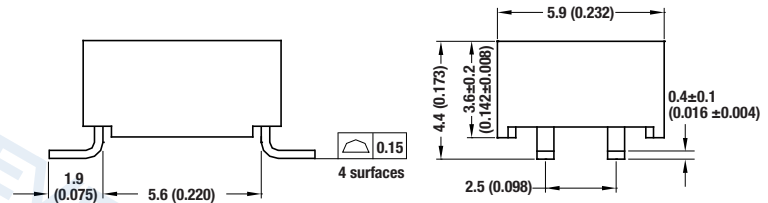
Peak reflow temperature	250°C
Pin finish	Pure tin dip

All specifications typical at T_A=25°C

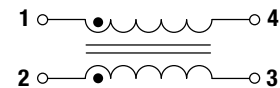
- 1 Measured between pins 1-4 or 2-3.
- 2 For further information, please visit www.murata-ps.com/rohs
- 3 The maximum DC current occurs when its temperature rise reaches 40°C.
- 4 Flash tested for 1 second.

PACKAGE SPECIFICATIONS

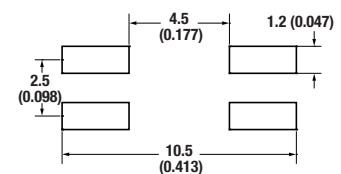
Mechanical Dimensions



Schematic



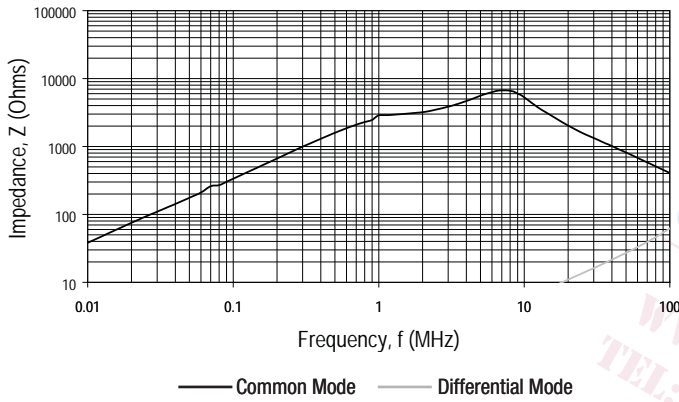
Recommended Footprint Details



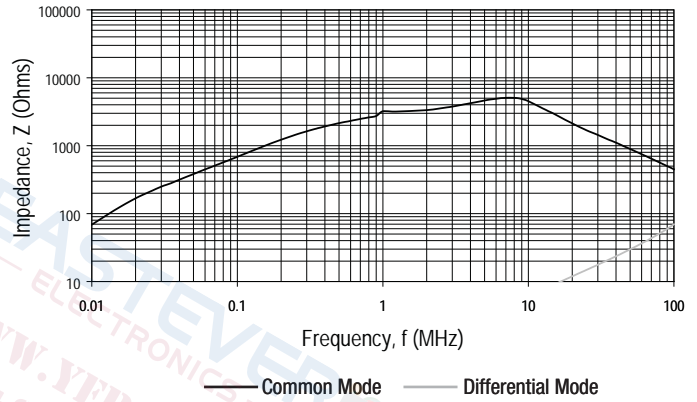
Unless otherwise stated, all dimensions in mm (inches) ±0.25 (0.010).
Package weight 0.30g Typ.

IMPEDANCE IN COMMON MODE AND DIFFERENTIAL MODE VS FREQUENCY

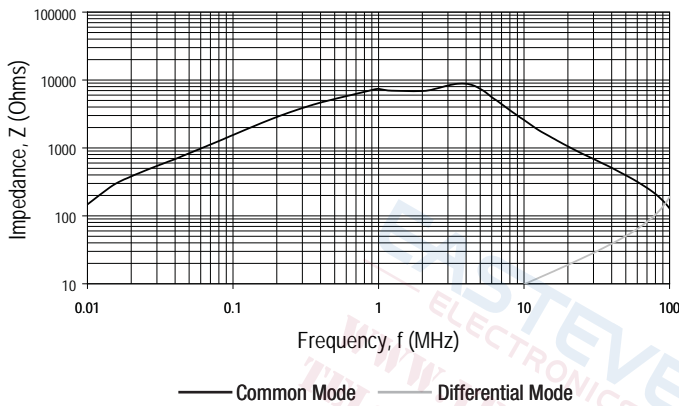
SMC50474C



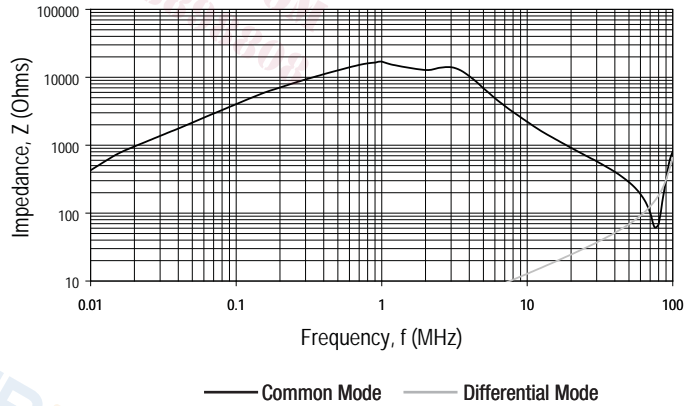
SMC50105C



SMC50225C



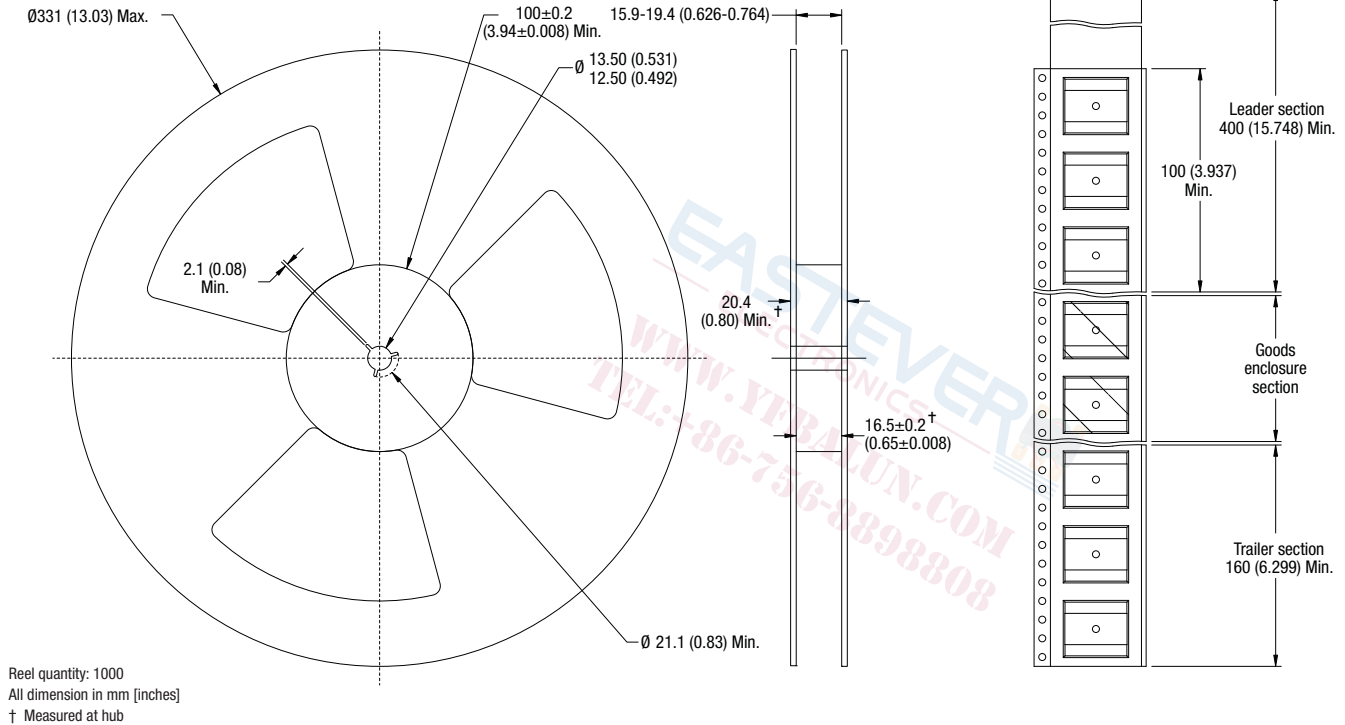
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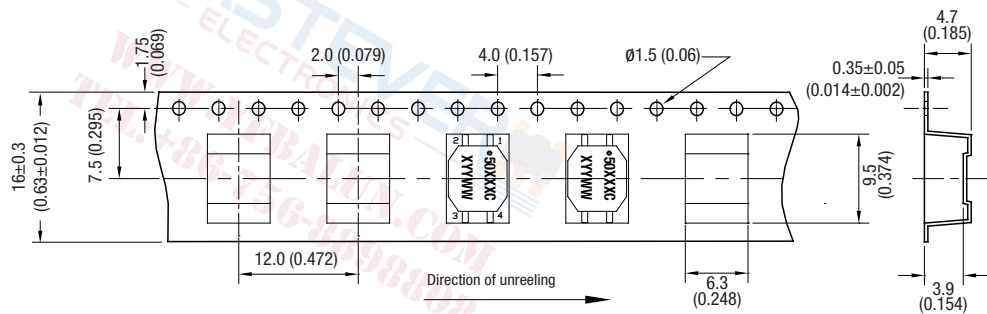
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PACKAGE SPECIFICATIONS

Mechanical Dimensions



Tape Outline Dimensions



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