



### FEATURES

- RoHS compliant
- 0.47mH to 4.7mH
- Surface mount
- Up to 0.7A I<sub>DC</sub>
- 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.

### SELECTION GUIDE

Order Code	Inductance, L <sup>1</sup> (0.1V @ 100kHz)		Leakage Inductance, L <sub>L</sub> (0.1V @ 100kHz)		DC Resistance, R <sup>1</sup>	Current Rating <sup>3</sup> (series connection)	Isolation <sup>4</sup>
	Nom.	Tolerance	Typ.	Max.	Max.	mA <sub>DC</sub>	V <sub>rms</sub>
	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 INFORMATION<sup>2</sup>

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

All specifications typical at T<sub>A</sub>=25°C

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

2 For further information, please visit [www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)

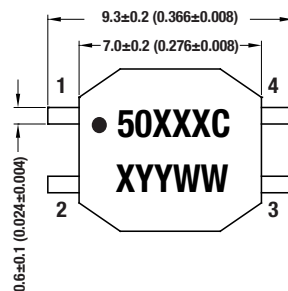
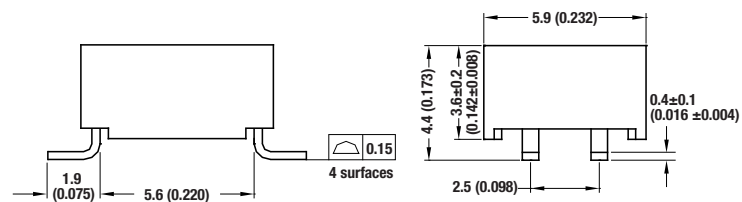
3 The maximum DC current occurs when its temperature rise reaches 40°C.

4 Flash tested for 1 second.

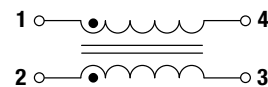
5 Representative samples of the product were subjected to the conditioning described in IPC/JEDEC J-STD-020C and passed electrical testing, package coplanarity and visual inspection which revealed no external cracks or changes in package body flatness.

### PACKAGE SPECIFICATIONS

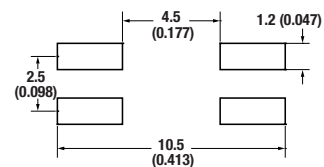
#### Mechanical Dimensions



#### Schematic



#### Recommended Footprint Details



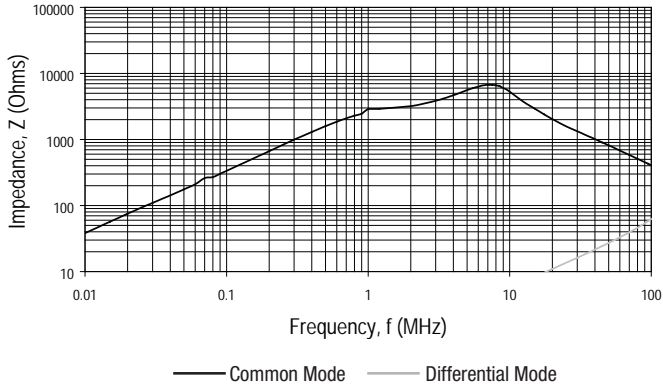
Unless otherwise stated, all dimensions in mm (inches) ±0.25 (0.010).  
Package weight 0.30g Typ.



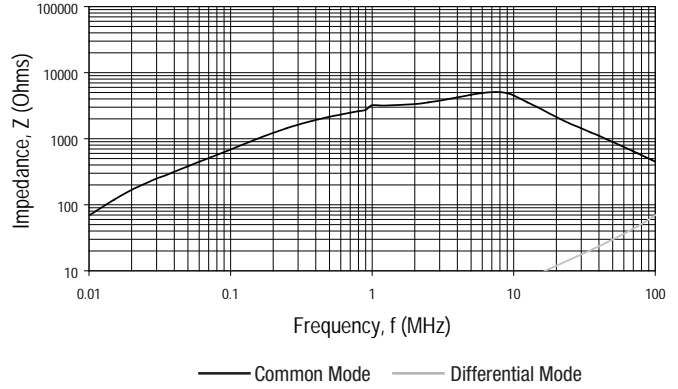
For full details go to  
[www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)

**IMPEDANCE IN COMMON MODE AND DIFFERENTIAL MODE VS FREQUENCY**

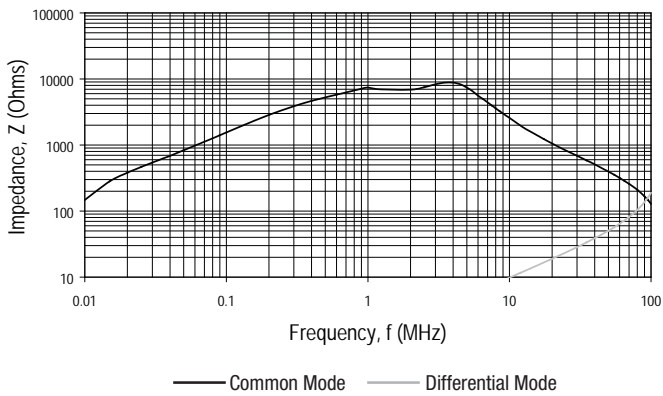
**50474C**



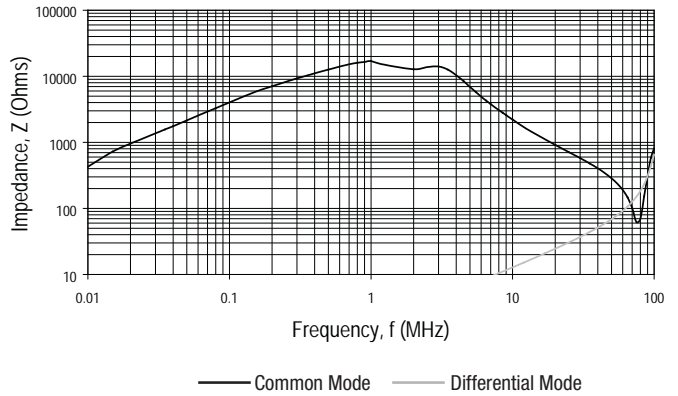
**50105C**



**50225C**

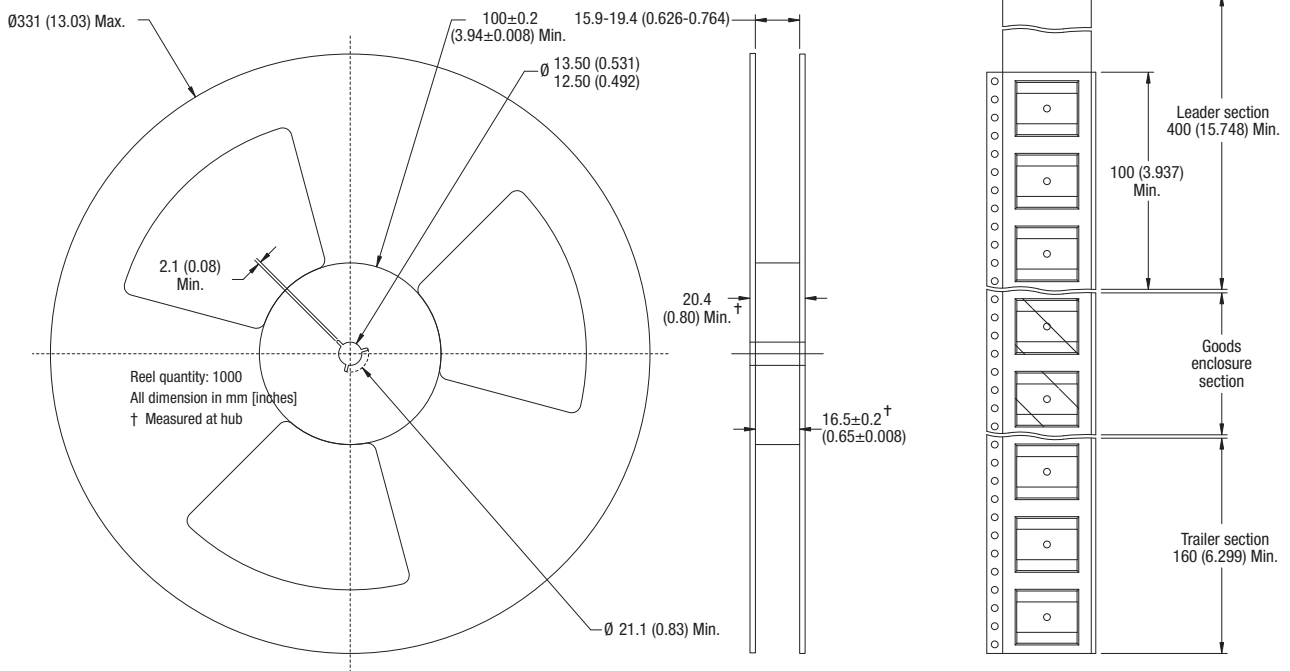


**50475C**

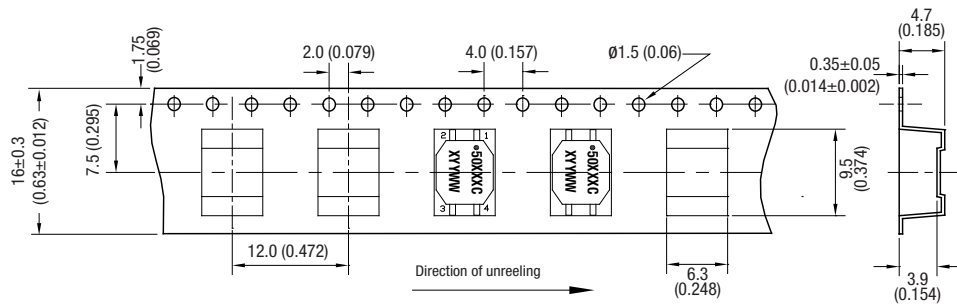


**PACKAGE SPECIFICATIONS**

**Mechanical Dimensions**



**Tape Outline Dimensions**



Unless otherwise stated, all dimensions in mm (inches)  $\pm 0.1$  (0.004).

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- Traffic signal equipment
- Disaster prevention / crime prevention equipment
- Data Processing equipment

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