Murata Power Solutions

4700S Series

Shielded Surface Mount Power Inductors



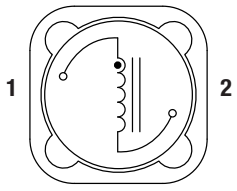
FEATURES

- RoHS compliant
- 1.0µH to 1.0mH
- Up to 10A I_{DC}
- Bobbin format
- Surface mount
- Integral EMI shield
- Compact size
- Tape and reel packaging
- UL 94V-0 materials
- J-STD-020-C reflow

DESCRIPTION

The 4700S series is a range of bobbin-wound, surface-mount inductors designed for use in switching power supply, and power line filter circuits. The parts are suitable for any application requiring a high saturation current in a low-profile package. The devices have an integral ferrite shield to reduce EMI.

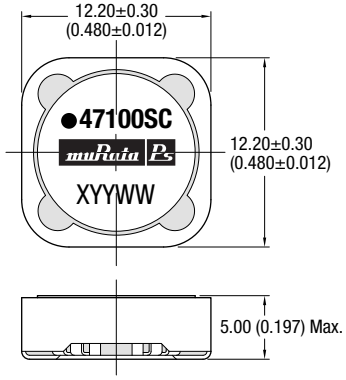
PIN CONNECTIONS (TOP VIEW)

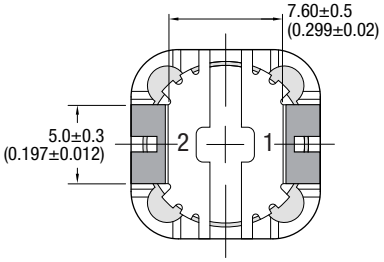


SELECTION GUIDE

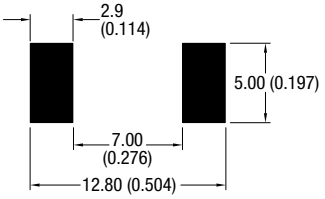
Order Code	Inductance (10kHz, 100mVAC) ±20%	DC Current[1]	DC Resistance	SRF	Q Factor	
	Nom.	Max.	Max.	Typ.	Typ.	
	µH	A	mΩ	MHz	Q	@ f (MHz)
471R0SC	1.0 (±30%)	10.0	4.8	79	24	1
472R2SC	2.2 (±30%)	7.0	8.5	44	24	1
473R3SC	3.3 (±30%)	6.4	11.1	36	25	1
474R7SC	4.7 (±30%)	5.8	16.4	34	25	1
476R8SC	6.8 (±30%)	4.6	26.9	24	24	1
47100SC	10	3.8	32.3	22	22	1
47150SC	15	3.2	46.5	18	29	1
47220SC	22	2.7	62.9	14	29	1
47330SC	33	2.2	91.1	13	23	1
47470SC	47	1.9	168	11	23	1
47680SC	68	1.6	210	9	23	1
47101SC	100	1.3	267	8	20	0.8
47151SC	150	1.1	410	7	19	0.8
47221SC	220	0.8	629	6	20	0.8
47331SC	330	0.7	940	5	21	0.8
47471SC	470	0.58	1330	5	23	0.8
47681SC	680	0.48	1780	4	17	0.8
47102SC	1000	0.40	2540	4	17	0.8

MECHANICAL DIMENSIONS





Recommended Footprint Details



Dot signifies the innermost turn of the winding.
All dimensions in mm (inches). Package weight: 2.4g Typ.

ABSOLUTE MAXIMUM RATINGS

Operating free air temperature range	-40ºC to 85ºC
Storage temperature range	-40ºC to 125ºC

SOLDERING INFORMATION[2]

Peak reflow solder temperature	245˚C
Pin finish	Tin

Specifications typical at T_A = 25°C

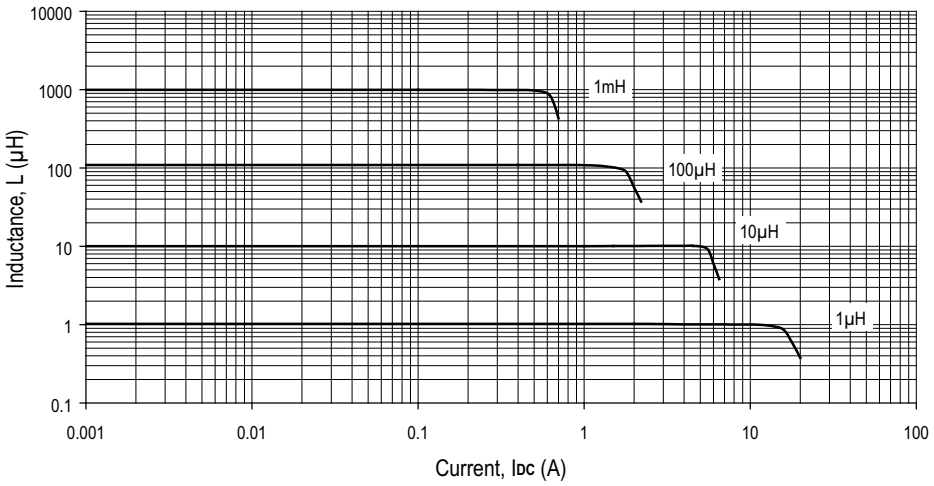
1 Maximum DC current occurs when either the inductance falls to 75% of its nominal value or when its temperature rise reaches 40°C, whichever is sooner.

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

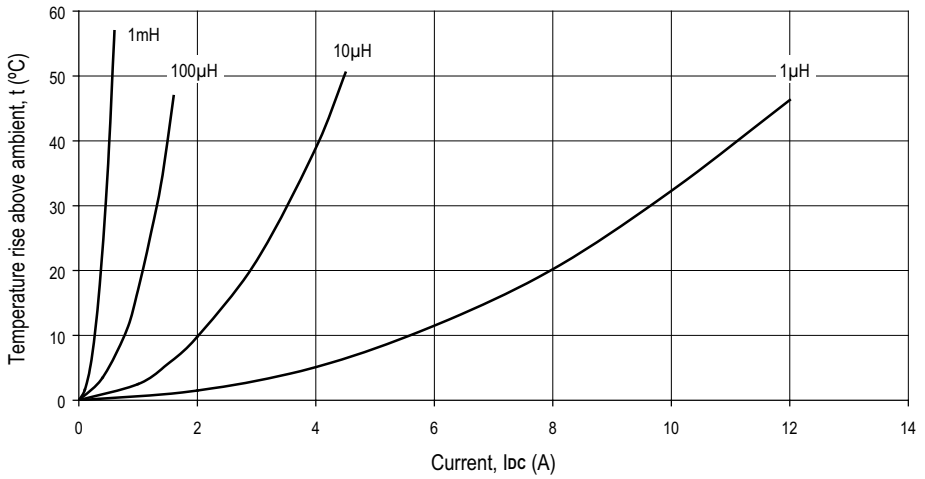
RoHS COMPLIANT 2002/95/EC

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

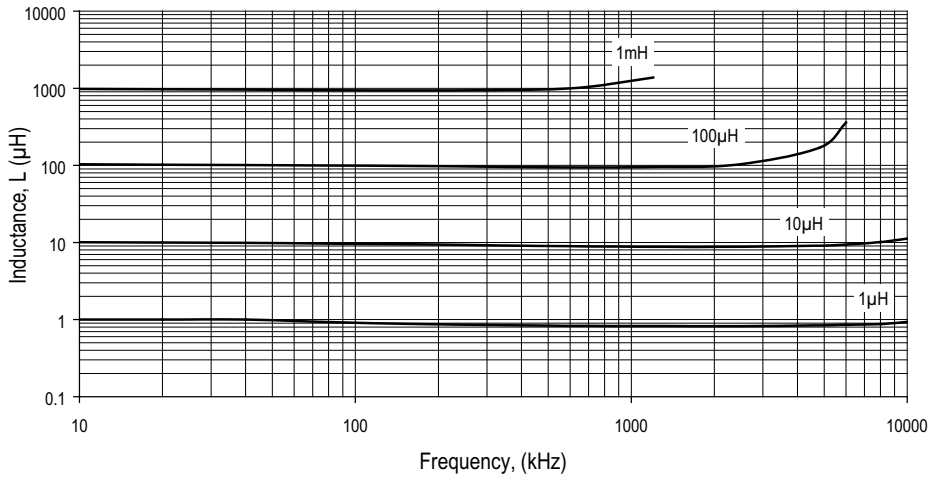
INDUCTANCE Vs CURRENT



TEMPERATURE Vs CURRENT

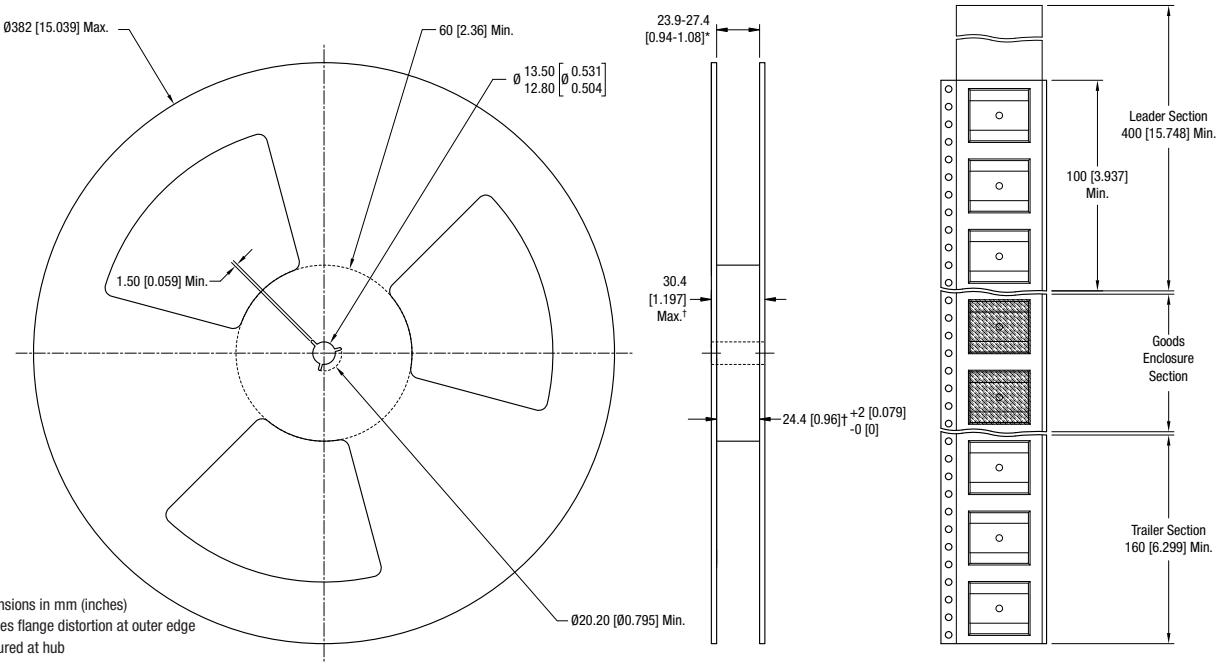


INDUCTANCE Vs FREQUENCY



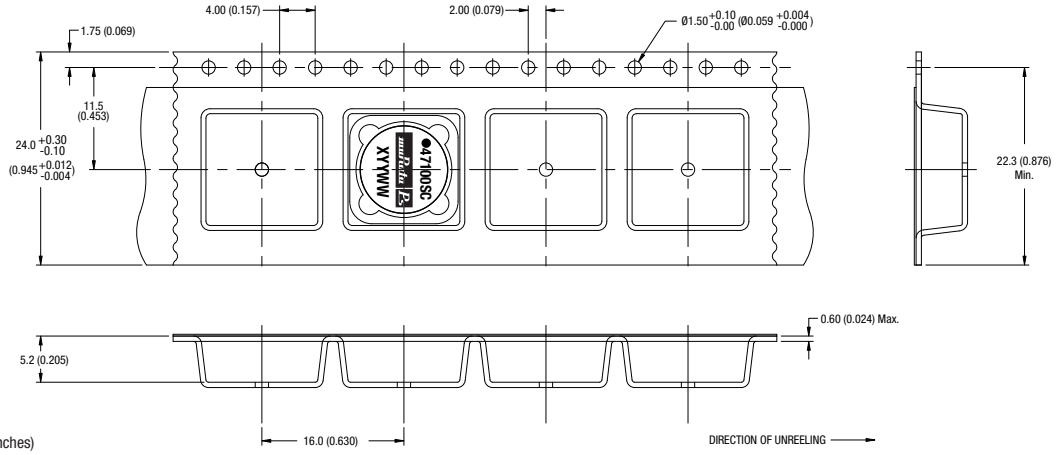
TAPE & REEL SPECIFICATIONS

REEL OUTLINE DIMENSIONS



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

TAPE OUTLINE DIMENSIONS



All dimensions in mm (inches)

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