



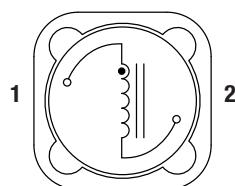
FEATURES

- RoHS compliant
- 1.0 μ H 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.

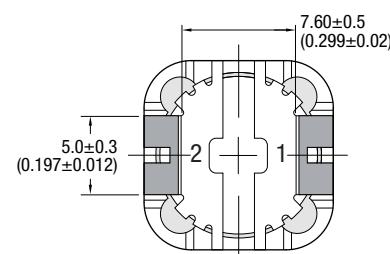
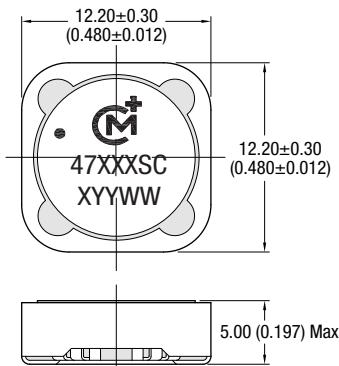
PIN CONNECTIONS (TOP VIEW)



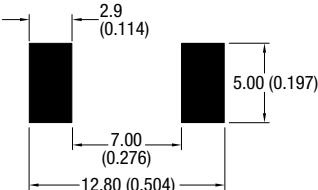
SELECTION GUIDE

| Order Code | Inductance (10kHz, 100mVAC) ±20% | DC Current ¹ | DC Resistance | SRF | Q Factor | |
|----------------|--|-------------------------|------------------|------|----------|-----------|
| | Nom. | Max. | Max. | Typ. | Typ. | |
| | μ H | A | $\text{m}\Omega$ | MHz | Q | @ f (MHz) |
| 4710SC | 1.0 ($\pm 30\%$) | 10.0 | 4.8 | 79 | 24 | 1 |
| 4720SC | 2.2 ($\pm 30\%$) | 7.0 | 8.5 | 44 | 24 | 1 |
| 4730SC | 3.3 ($\pm 30\%$) | 6.4 | 11.1 | 36 | 25 | 1 |
| 4740SC | 4.7 ($\pm 30\%$) | 5.8 | 16.4 | 34 | 25 | 1 |
| 4760SC | 6.8 ($\pm 30\%$) | 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



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 solder temperature | 245°C |
| Pin finish | Tin |

Specifications typical at $T_A = 25^\circ\text{C}$

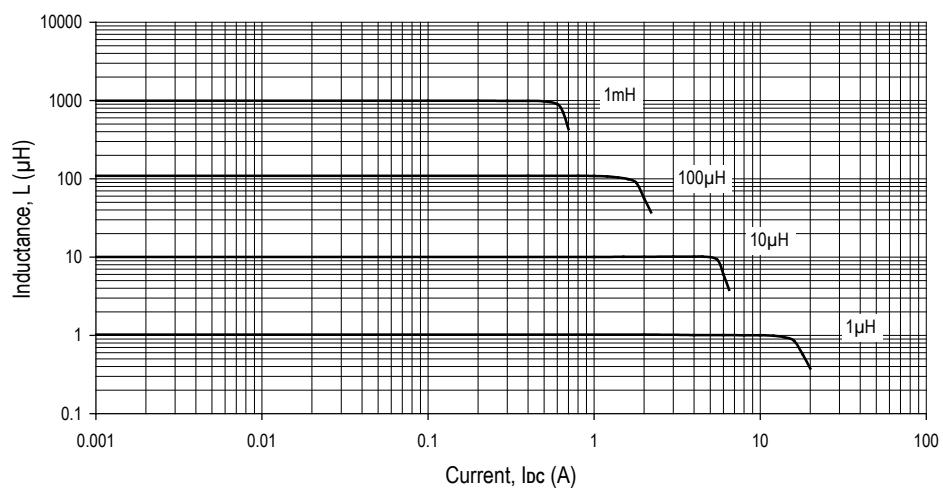
1 Maximum DC current occurs when either the inductance falls to 75% of its nominal value or when its temperature rise reaches 40°C, whichever is sooner.

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

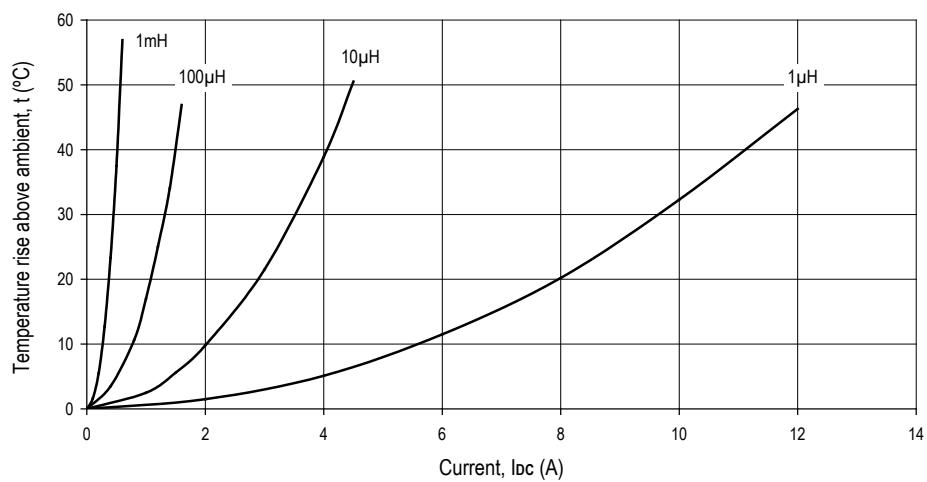


For full details go to
www.murata-ps.com/rohs

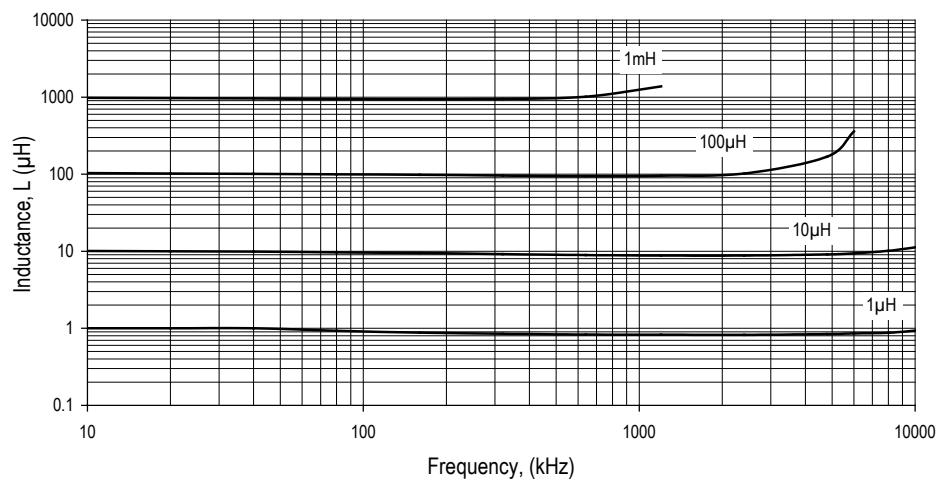
INDUCTANCE Vs CURRENT



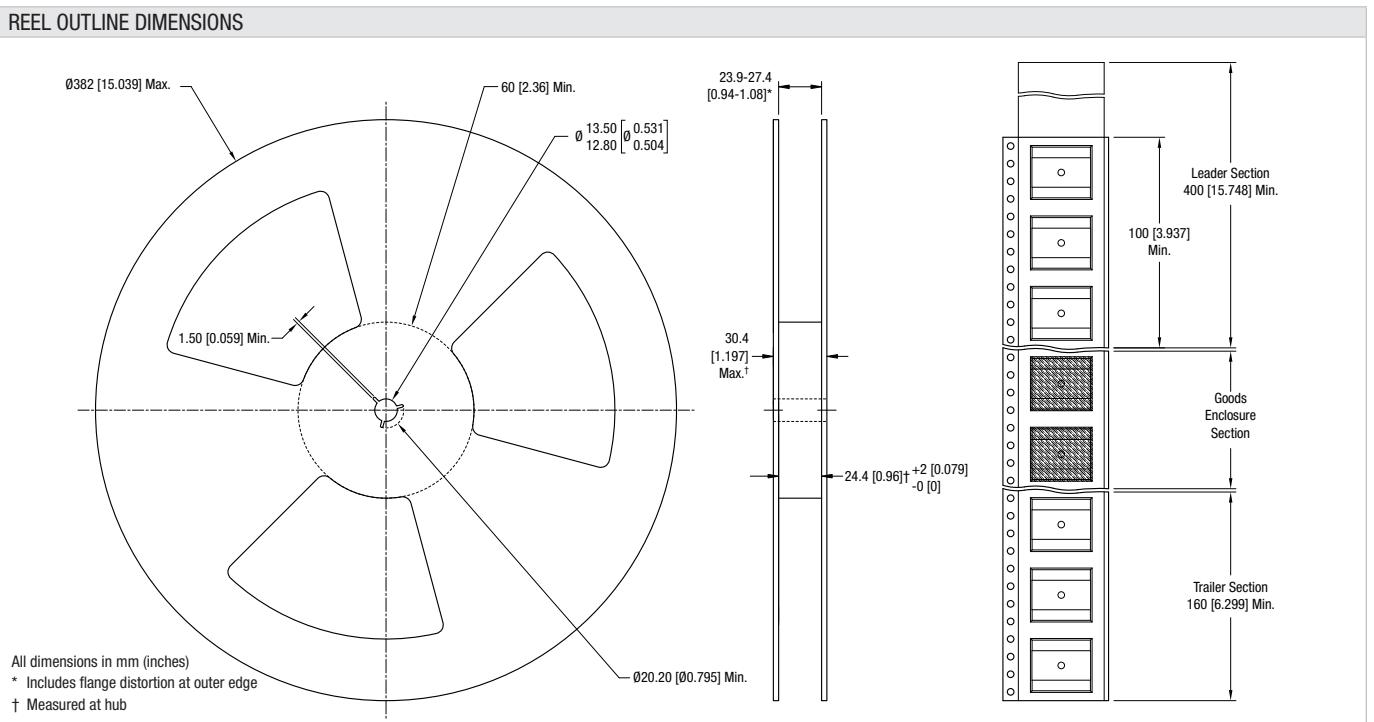
TEMPERATURE Vs CURRENT



INDUCTANCE Vs FREQUENCY



TAPE & REEL SPECIFICATIONS



TAPE OUTLINE DIMENSIONS

4.00 (0.157)

2.00 (0.079)

Ø1.50 [0.10] (0.059 [0.004])

1.75 (0.069)

11.5 (0.453)

24.0 (+0.30/-0.10) (0.945 [+0.012/-0.004])

5.2 (0.205)

16.0 (0.630)

0.60 (0.024) Max.

22.3 (0.876) Min.

DIRECTION OF UNREELING →

All dimensions in mm (inches)

Mouser Electronics

Authorized Distributor

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Murata:

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[472R2SC](#) [47221SC](#) [47102SC](#) [47101SC](#) [47150SC](#) [47331SC](#) [47100SC](#)