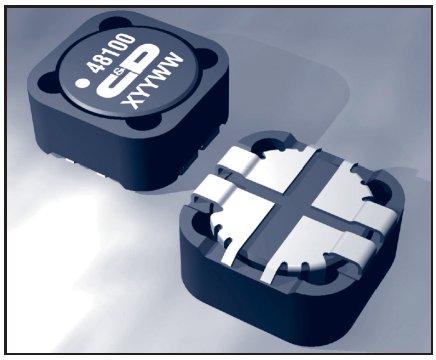
C&D TECHNOLOGIES
Power Solutions

4800 SERIES

Dual Winding Surface Mount Inductors



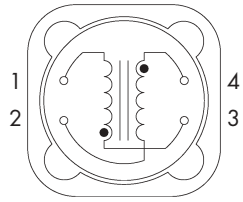
FEATURES

- 1.0µH to 400µH[1]
- Up to 12.3A IDC
- Bobbin Format
- Dual Winding
- Surface Mounting
- Integral EMI Shield
- Compact Size
- Tape and Reel Packaging

DESCRIPTION

The 4800 series is a range of dual wound inductors offering flexible options. Windings can be connected in series or parallel to create a wide range of inductance combinations. They can also be used as common mode chokes or 1:1 transformers with the secondary winding used as a feedback winding in switched mode power supplies.

PIN CONNECTIONS (TOP VIEW)



3 & 1 = Primary Winding
4 & 2 = Secondary Winding

1 When connecting windings in series, inductance will be 4 times the nominal figure shown.
2 Specifications typical at TA=25°C
3 If current is flowing in both windings the maximum DC current occurs when either the inductance falls to 85% of its nominal value or when its temperature rise reaches 40°C, whichever is sooner.

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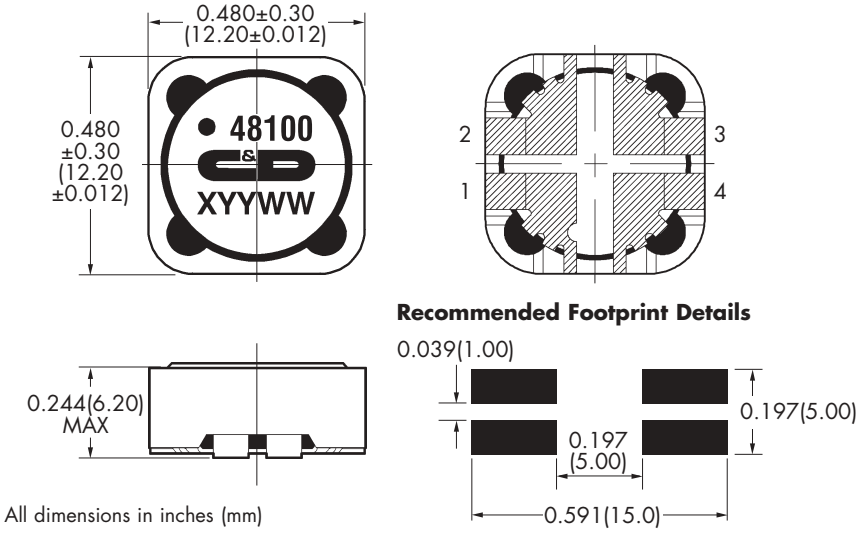
SELECTION GUIDE[2]

Order Code	Nominal Inductance[1] µH 10kHz,100mV 1&3, 2&4	Inductance Range µH 10kHz, 100mV 1&3, 2&4	DC Current Continuous[3] A MAX 1&2 S/C to 3&4 S/C	DC Resistance mΩ MAX 1&3, 2&4
481R0	1.0	0.66 - 1.11	12.3	9.00
482R2	2.2	1.64 - 2.73	8.30	13.5
483R3	3.3	2.29 - 3.82	6.80	19.1
484R7	4.7	4.18 - 6.27	5.70	29.4
486R8	6.8	5.22 - 7.83	4.70	39.9
48100	10	7.65 - 11.5	3.90	61.4
48150	15	12.2 - 18.2	3.20	77.4
48220	22	17.7 - 26.6	2.60	119
48330	33	26.7 - 40.1	2.10	184
48470	47	37.6 - 56.4	1.80	274
48680	68	53.8 - 80.7	1.50	409
48101	100	81.3 - 122	1.23	503

ABSOLUTE MAXIMUM RATINGS

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

MECHANICAL DIMENSIONS



All dimensions in inches (mm)

PACKAGE DETAILS

Order Code	TYP Weight (g)	Packaging Style
48XXX	3.1	Tape & Reel

REEL DIMENSIONS (SEE FIG.1)

Order Code	Reel Quantity	Reel Outline Dimensions N	W1	W2	W3
48XXX	600	2.362 (60.0)	0.961 (24.4)	1.197 (30.4)	0.914-1.079 (23.9-27.4)

All dimensions in inches(mm).
Controlling dimension in mm.

TAPE DIMENSIONS (SEE FIG.2)

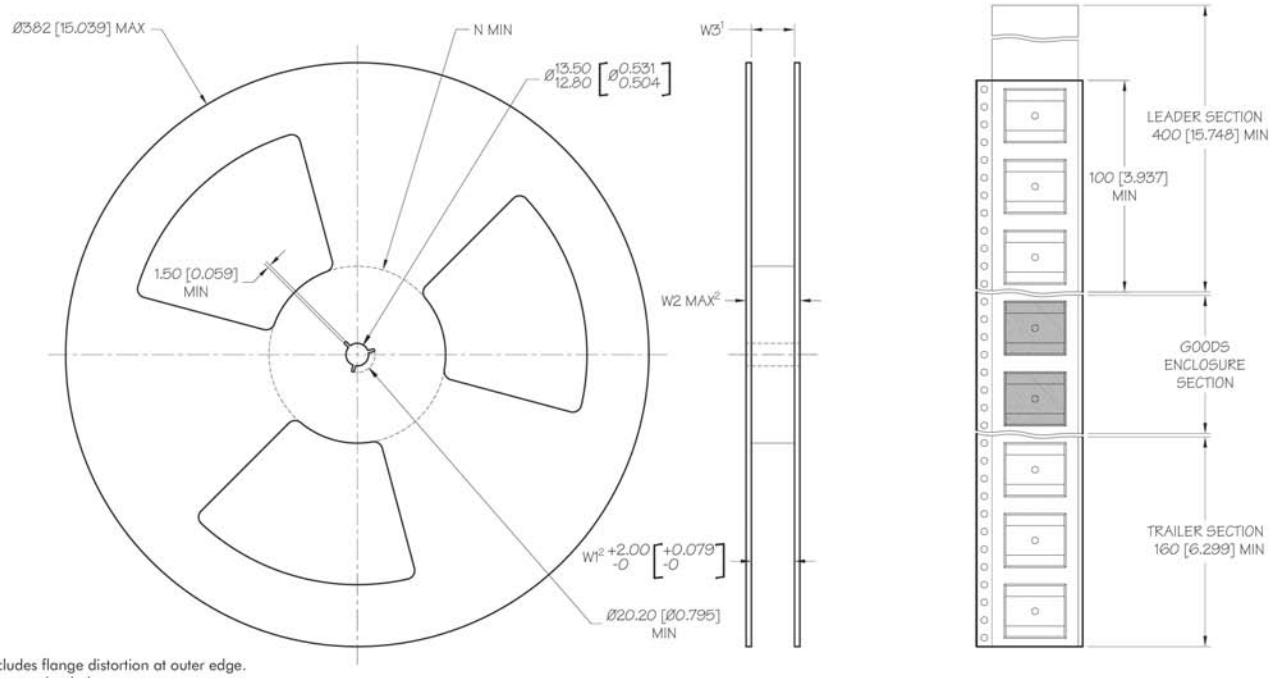
Order Code	Tape Outline Dimensions A0	B0	E2	F	K0	P1	W
48XXX	0.496 (12.6)	0.496 (12.6)	0.876 (22.3)	0.453 (11.5)	0.252 (6.4)	0.630 (16.0)	0.945 (24.0)

All dimensions in inches(mm).
Controlling dimension in mm.

TAPE & REEL SPECIFICATIONS

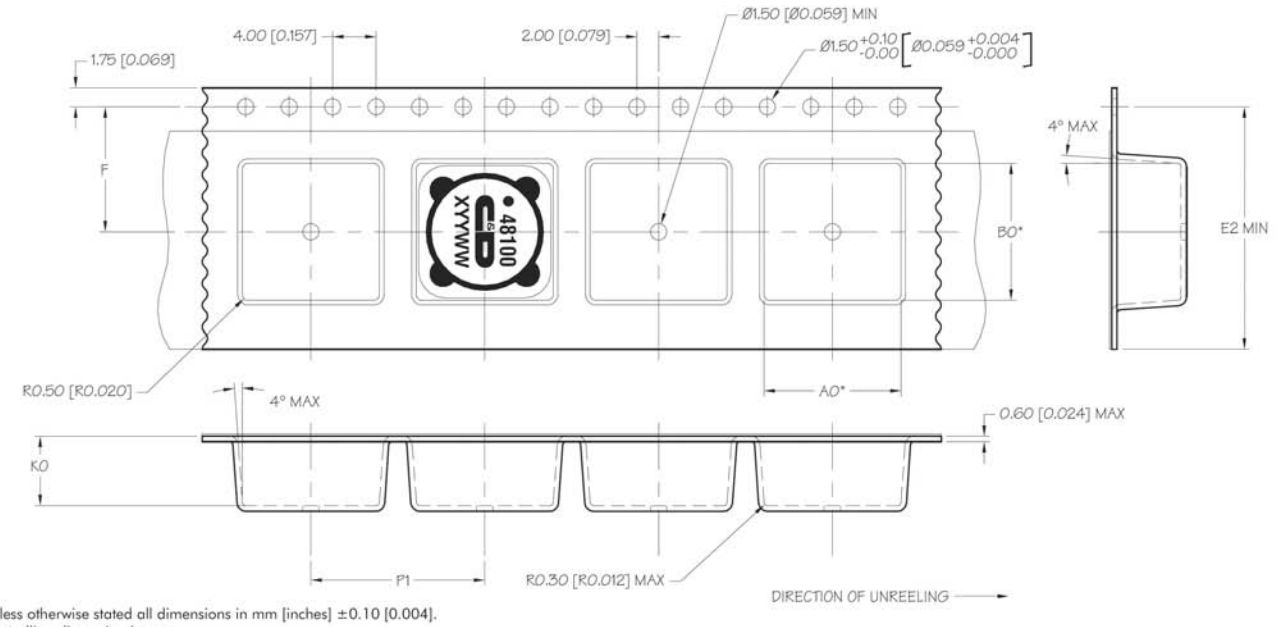
- Tape and reel specifications shall conform with standards IEC 60286-3 & EIA-481-C
- Peel force and speed of cover tape;
  0.1-1.3N @300±10mm/MIN, the angle between the cover tape during peel-off and the direction of unreeling shall be 165-180°.
- The break force of the cover tape shall be 10N MIN.
- The carrier tape leader section shall include a minimum 100mm length of empty carrier tape sealed by the cover tape (see FIG.1).
- The maximum number of missing components shall be one or 0.1%, whichever is greater. In no case shall there be two or more consecutive components missing.
- The trailer section shall consist entirely of empty carrier tape sealed by the cover tape.
- The carrier tape shall be released from the reel hub as the last portion of the carrier tape unwinds from the reel.
- Sprocket hole pitch tolerance over any 10 pitches ±0.2mm.
- Carrier tape camber shall not exceed 1mm/250mm in either direction.

FIG.1 REEL - OUTLINE DIMENSIONS



1 - Includes flange distortion at outer edge.
2 - Measured at hub.
Unless otherwise stated all dimensions in mm [inches], controlling dimension is mm.

FIG.2 TAPE - OUTLINE DIMENSIONS



Unless otherwise stated all dimensions in mm [inches] ±0.10 [0.004].
Controlling dimension is mm.
Components shall be orientated within the carrier tape pocket as indicated.
1 - Measured on a plane 0.30 [0.012] above the bottom of the pocket.

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