



Features

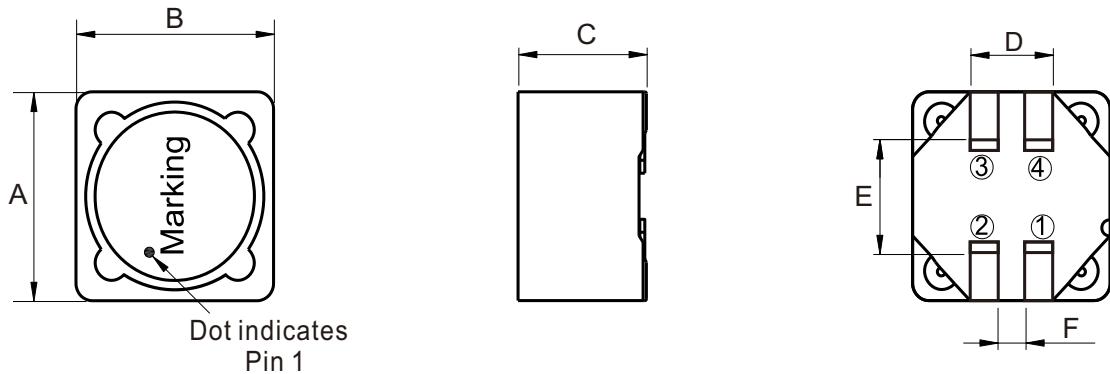
- Used in a variety of circuits including flyback, multi-output buck and SEPIC.
- Can also be used as two single inductors connected in series or parallel, as a Common mode choke or as a 1:1 transformer.
- Provide high inductance, excellent current handing in a rugged, low cost part.

General Specifications

- Storage temp range: -40°C to +125°C
- Operating temp range: -40°C to +125°C

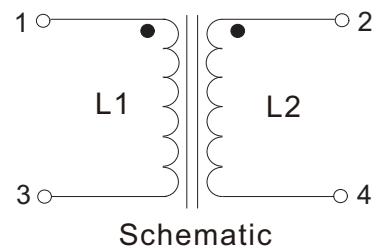
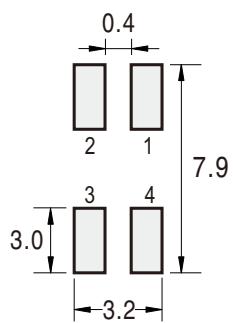


Shape and Dimensions (Unit:mm)



| Type | A | B | C | D | E | F |
|----------|-----------|-----------|---------|-----------|-----------|-----------|
| MSRH74DP | 7.3 ± 0.3 | 7.3 ± 0.3 | 4.6 max | 2.9 ± 0.3 | 2.7 ± 0.3 | 1.0 ± 0.2 |

Recommended Layout

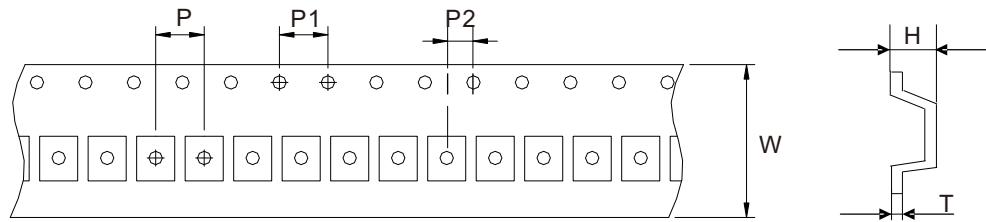


► Electrical Characteristics For MS74DP Series

| Part Number | Inductance [uH] | DCR(max) [Ω] | Isat (max) [A] | Irms [A] | |
|---------------|--------------------|-----------------|-------------------|---------------|-------------|
| | | | | Both Windings | One Winding |
| MSRH74DP-3R3M | 3.3 ±20% | 0.040 | 5.4 | 2.05 | 2.89 |
| MSRH74DP-4R7M | 4.7 ±20% | 0.051 | 4.6 | 1.74 | 2.46 |
| MSRH74DP-5R6M | 5.6 ±20% | 0.063 | 4.2 | 1.57 | 2.22 |
| MSRH74DP-6R8M | 6.8 ±20% | 0.070 | 3.9 | 1.49 | 2.10 |
| MSRH74DP-8R2M | 8.2 ±20% | 0.075 | 3.5 | 1.44 | 2.03 |
| MSRH74DP-100M | 10 ±20% | 0.100 | 3.0 | 1.24 | 1.76 |
| MSRH74DP-120M | 12 ±20% | 0.120 | 2.7 | 1.14 | 1.61 |
| MSRH74DP-150M | 15 ±20% | 0.130 | 2.4 | 1.09 | 1.54 |
| MSRH74DP-180M | 18 ±20% | 0.170 | 2.3 | 0.95 | 1.35 |
| MSRH74DP-220M | 22 ±20% | 0.220 | 2.1 | 0.84 | 1.19 |
| MSRH74DP-270M | 27 ±20% | 0.250 | 1.9 | 0.79 | 1.11 |
| MSRH74DP-330M | 33 ±20% | 0.270 | 1.7 | 0.76 | 1.07 |
| MSRH74DP-390M | 39 ±20% | 0.380 | 1.5 | 0.64 | 0.90 |
| MSRH74DP-470M | 47 ±20% | 0.420 | 1.4 | 0.61 | 0.86 |
| MSRH74DP-560M | 56 ±20% | 0.460 | 1.3 | 0.58 | 0.82 |
| MSRH74DP-680M | 68 ±20% | 0.600 | 1.2 | 0.51 | 0.72 |
| MSRH74DP-820M | 82 ±20% | 0.680 | 1.1 | 0.48 | 0.67 |
| MSRH74DP-101M | 100 ±20% | 0.770 | 0.98 | 0.45 | 0.63 |
| MSRH74DP-121M | 120 ±20% | 1.03 | 0.90 | 0.39 | 0.55 |
| MSRH74DP-151M | 150 ±20% | 1.35 | 0.80 | 0.34 | 0.48 |
| MSRH74DP-181M | 180 ±20% | 1.52 | 0.73 | 0.32 | 0.45 |
| MSRH74DP-221M | 220 ±20% | 1.72 | 0.66 | 0.30 | 0.42 |
| MSRH74DP-271M | 270 ±20% | 2.41 | 0.60 | 0.25 | 0.36 |
| MSRH74DP-331M | 330 ±20% | 2.70 | 0.54 | 0.24 | 0.34 |
| MSRH74DP-391M | 390 ±20% | 3.05 | 0.50 | 0.23 | 0.32 |
| MSRH74DP-471M | 470 ±20% | 4.00 | 0.46 | 0.20 | 0.28 |
| MSRH74DP-561M | 560 ±20% | 4.43 | 0.42 | 0.19 | 0.26 |
| MSRH74DP-681M | 680 ±20% | 5.00 | 0.38 | 0.18 | 0.25 |
| MSRH74DP-821M | 820 ±20% | 6.80 | 0.35 | 0.15 | 0.21 |
| MSRH74DP-102M | 1000 ±20% | 7.80 | 0.31 | 0.14 | 0.20 |

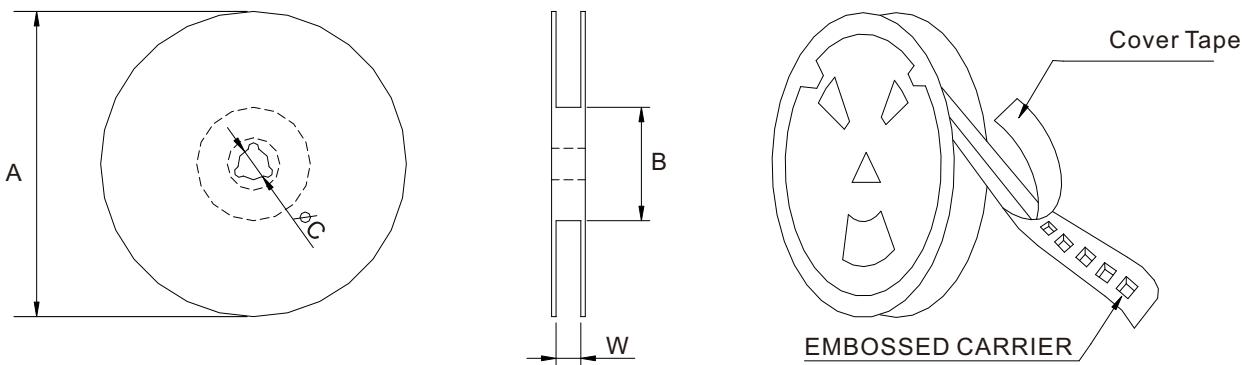
- Inductance tested at 1kHz, 0.25V, when leads are connected in parallel, inductance is the same value.
When leads are connected in series, inductance is four times the value
- DCR is for each winding, when leads are connected in parallel, DCR is half the value. When leads are connected in series, DCR is twice the value
- Saturation Current (Isat): DC current at which the inductance drops 30% from its value without current
- Irms(Both windings): Equal current when applied to each winding simultaneously that cause 40°C temp rise from 25°C ambient.
- Irms(one winding): Maximum current when applied to one winding that cause 40°C temp rise from 25°C ambient.
- Winding to winding isolation: 200Vrms/60S

► Tape & Reel Specifications:



Unit: mm

| Type | Dimension | W | P | P1 | P2 | H | T |
|----------|-----------|-----------|-----------|-----------|-----------|------------|------------|
| Type | Tolerance | ± 0.3 | ± 0.1 | ± 0.1 | ± 0.1 | ± 0.15 | ± 0.05 |
| MSRH74DP | | 16.0 | 12.0 | 4.0 | 2.0 | 3.80 | 0.35 |



Unit: mm

| Type | Dimension | QTY Per Reel | A | B | C | W |
|----------|-----------|--------------|-----------|-----------|-----------|-----------|
| Type | Tolerance | PCS | ± 2.0 | ± 0.5 | ± 0.5 | ± 0.5 |
| MSRH74DP | | 1000 | 330 | 97 | 13 | 16.4 |