

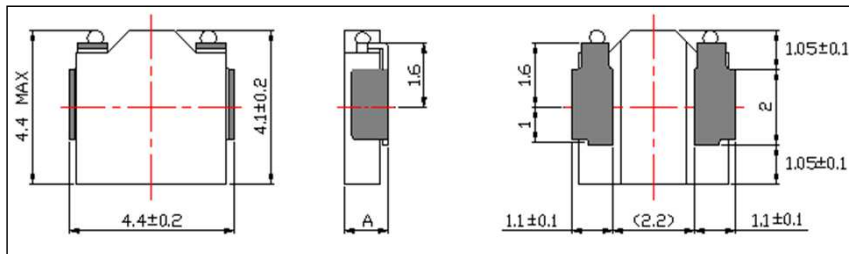
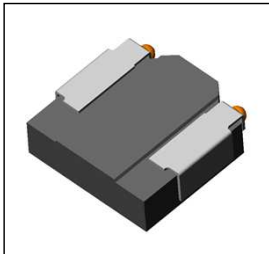
**LY**

SMD Metal Alloy Power Inductors 電源回路用薄型金屬合金功率電感

Inductance Range : 0.47 ~ 4.7 μH (SMF 0412-A-Series)
使用電感範圍 0.47 ~ 4.7 μH (SMF 0415-A-Series)
0.47 ~ 4.7 μH (SMF 0420-A-Series)

Dimensions

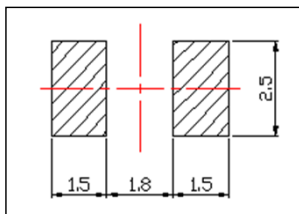
外型與尺寸



A = 0412 : 1.2 mm Max. / 0415 : 1.5 mm Max. / 0420 : 2.0 mm Max.

Recommended Patterns

推薦焊盤尺寸



Features : 特點

- Small and thickness 4.4 X 4.4 mm Square and 1.2 / 1.5 / 2.0 mm Max.height .
- Magnetically shielded construction, low DC resistance .
- Using high saturating flux density magnetic iron powder ensure capability for large current .
- High Curie's Temp. for wider function Temp. .
- Low audible core noise .
- Ideal for DC-DC converter applications .
- RoHS compliant. Halogen Free .
- 小型薄形 : 4.4 X 4.4 mm 的平面, 最大高度 1.2 / 1.5 / 2.0 mm
- 磁性屏蔽結構, 低直流電阻。
- 使用高飽和磁束密度合金系磁性粉, 可保證大電流。
- 居里溫度高, 動作溫度範圍廣。
- 低芯片噪音。
- DC-DC 轉換器電感器的理想選擇。
- 符合 RoHS 指令, 無鹵素。

Using : 用途

Smartphones (智慧手機), Note Book (個人平板電腦), Others (其他)

Part Numbers : 品名稱呼

SMF 0412 T - 1R0 - M - A

(1) (2) (3) (4) (5) (6)

(1) Part Numbers (系列名) : SMF-扁線

(2) Dimensions (尺寸 L*H) : 0412 - 4.4 * 1.2 mm Max.

(3) Packing (包裝方式) : T - Carrier Tape (承載膠帶)

(4) Inductance Value (電感值) : 1R0 - 1.0 μH

(5) Inductance Tolerance (電感值公差) : M = $\pm 20\%$

(6) A : LY Numbers (龍翌編號)

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LY Standard Part Numbers : 龍翌標準品名

TYPE SMF 0412-A (Quantity / Reel : 4000 PCS)

龍翌品名號碼	電感值 ①	公差	最大直流電阻 ②		最大電感減小電流 ③		最大溫度上升電流 ④	
LY Part Numbers	Inductance ① (μH)	Tolerance (%)	DC Resistance ② (mΩ)		Inductance Decrease current ③ ΔL/L=30%		Temperature Rise Current ④ ΔT=40°C	
			Typical	Maximum	Typical	Maximum	Typical	Maximum
SMF 0412T-R47M-A	0.47	±20%	13.2	15.3	13.5	12.0	7.6	6.8
SMF 0412T-R68M-A	0.68	±20%	21.3	25.0	10.5	9.4	5.6	5.0
SMF 0412T-1R0M-A	1.0	±20%	25.2	29.5	8.2	7.2	5.3	4.7
SMF 0412T-1R5M-A	1.5	±20%	36.9	43.3	5.8	5.0	4.8	4.2
SMF 0412T-2R2M-A	2.2	±20%	49.0	57.5	5.2	4.6	4.1	3.6
SMF 0412T-3R3M-A	3.3	±20%	90.0	105.0	4.2	3.6	2.8	2.4
SMF 0412T-4R7M-A	4.7	±20%	109.0	128.0	3.7	3.2	2.6	2.3

TYPE SMF 0415-A (Quantity / Reel : 3000 PCS)

龍翌品名號碼	電感值 ①	公差	最大直流電阻 ②		最大電感減小電流 ③		最大溫度上升電流 ④	
LY Part Numbers	Inductance ① (μH)	Tolerance (%)	DC Resistance ② (mΩ)		Inductance Decrease current ③ ΔL/L=30%		Temperature Rise Current ④ ΔT=40°C	
			Typical	Maximum	Typical	Maximum	Typical	Maximum
SMF 0415T-R47M-A	0.47	±20%	9.7	11.3	13.8	12.0	9.3	8.3
SMF 0415T-R68M-A	0.68	±20%	11.8	13.8	9.6	8.6	8.6	7.7
SMF 0415T-1R0M-A	1.0	±20%	19.3	22.5	9.4	8.4	6.1	5.4
SMF 0415T-1R5M-A	1.5	±20%	25.7	30.0	7.0	6.1	5.4	4.8
SMF 0415T-2R2M-A	2.2	±20%	41.3	48.0	6.5	5.8	4.2	3.7
SMF 0415T-3R3M-A	3.3	±20%	70.8	82.5	4.6	4.1	3.2	2.8
SMF 0415T-4R7M-A	4.7	±20%	85.0	100.0	4.1	3.5	2.8	2.5

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LY Standard Part Numbers : 龍翌標準品名

TYPE SMF 0420-A (Quantity / Reel : 2500 PCS)

龍翌品名號碼	電感值 ①	公差	最大直流電阻 ②		最大電感減小電流 ③		最大溫度上升電流 ④	
LY Part Numbers	Inductance ① (μ H)	Tolerance (%)	DC Resistance ② (m Ω)		Inductance Decrease current ③ $\Delta L/L=30\%$		Temperature Rise Current ④ $\Delta T=40^{\circ}\text{C}$	
			Typical	Maximum	Typical	Maximum	Typical	Maximum
SMF 0420T-R47M-A	0.47	$\pm 20\%$	7.5	8.9	18.0	16.0	10.5	9.4
SMF 0420T-R68M-A	0.68	$\pm 20\%$	11.4	13.2	10.5	9.4	9.3	8.3
SMF 0420T-1R0M-A	1.0	$\pm 20\%$	15.5	18.5	10.6	9.5	7.3	6.5
SMF 0420T-1R5M-A	1.5	$\pm 20\%$	20.8	24.5	8.0	7.1	6.0	5.4
SMF 0420T-2R2M-A	2.2	$\pm 20\%$	29.5	35.5	6.2	5.5	4.8	4.3
SMF 0420T-3R3M-A	3.3	$\pm 20\%$	44.5	52.0	5.2	4.5	3.9	3.4
SMF 0420T-4R7M-A	4.7	$\pm 20\%$	78.0	91.0	4.6	4.0	3.1	2.7

① Inductance is measured with a LCR meter E4980A

(Agilent Technologies) or equivalent. Test frequency at 100kHz.

② DC resistance is measured with 16502 Milliohm Meter.

(Chroma Technologies) (Reference ambient temperature 25°C)

③ Inductance decrease current based upon 30% inductance reduction

(Approximately transient current)

from the initial value. Inductance decrease current is measured with 3302 Automatic Component Analyzer and 1320 Bias Current Source.

(Chroma Technologies)

④ Temperature rise current based upon 40°C temperature rise.

(Reference ambient temperature 25°C)

⑤ Operating temperature range -40°C ~ +125°C (Including self - temperature rise)

① 電感值是以LCR儀表E4980A (Agilent技術)

或者相同功能儀器在100kHz下測試。

② 直流電阻值是通過毫歐姆表16502 (Chroma技術)測得。

(測試環境溫度為25°C)。

③ 電感值降低電流是基於電感值從最初的值降低30%計算。

(瞬間電流)

電感值降低電流是以3302自動零件分析儀和1320直流重疊電流源測得。

(Chroma技術)

④ 溫度升高電流是基於溫度上升40°C 的基礎上衡量的

(測試環境溫度為25°C)。

⑤ 動作溫度範圍是 -40°C ~ +125°C (包含溫昇)

Notice : Please be sure that you carefully discuss your planned purchase with our sales division if you prepare to use the product for business use etc.is severe.

注意:如果您準備使用該產品作為商業用途等,請您與我們的銷售部詳細討論您的購買計劃。

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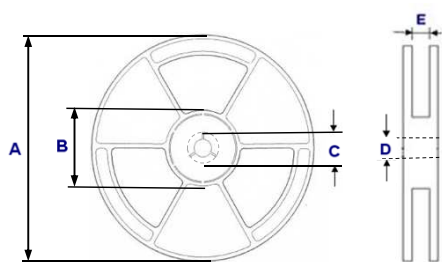
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Packaging Information :

(1) Reel :

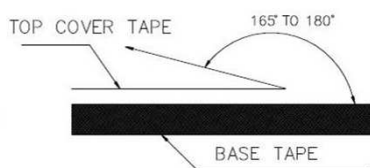


(Unit:mm)

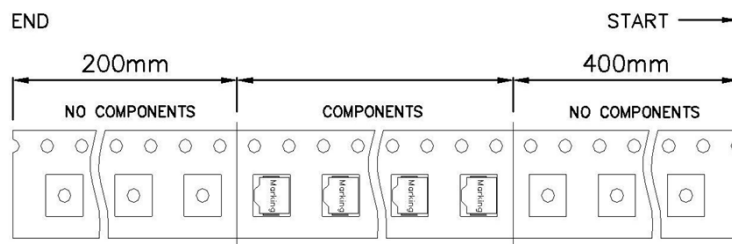
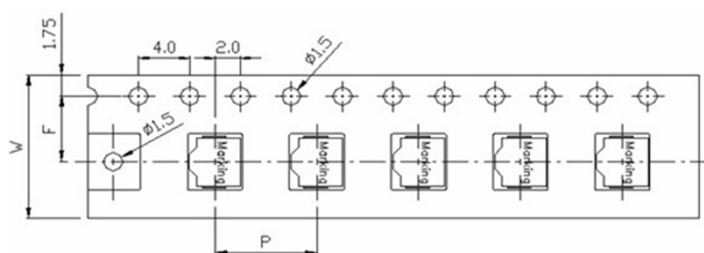
A	B	C	D	E
330 ^{+0.5} ₊₀	100 ^{+0.5} ₊₀	21.2 ^{+0.5} ₊₀	13.2 ^{+0.5} ₊₀	12.7±1.5

(2) Top Cover Tape Pulling Force & Angle :

Typical Pulling Force:
10-130g



(3) Carrier Tape :



(Unit:mm)

P	W	F
8.0±0.1	12.0±0.3	5.5±0.1

(4) Packing Quantity :

Type	Inner : BOX		Outer : CARTON
	Pcs/Reel	1 Reel / BOX BOX Size (mm)	12 BOX / CARTON CARTON Size (mm)
0412	4000	340 x 340 x 28	365 x 365 x 430
0415	3000		
0420	2500		