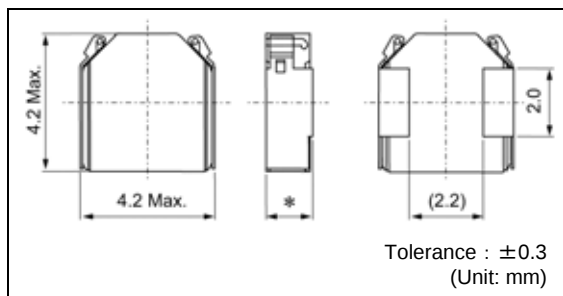


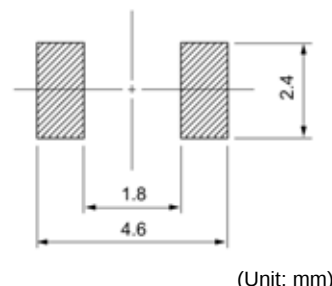
# FDSD0412 / FDSD0415 / FDSD0420

**Inductance Range:** 0.33~4.7μH (FDSD0412), 0.22~4.7μH (FDSD0415),  
0.47~10μH (FDSD0420)

**Recommended patterns**  
推奨パターン図



\*: FDSD0412 : 1.2mm Max  
FDSD0415 : 1.5mm Max.  
FDSD0420 : 2.0mm Max.



(Unit: mm)

## FEATURES 特長

- 4.0 × 4.0mm square and 1.2/ 1.5 /2.0mm Max. height.
- Magnetically shielded construction, low DC resistance.
- The use of magnetic iron powder ensure capability for large current.
- Low audible core noise.
- Ideal for DC-DC converter applications
- RoHS compliant. Halogen Free.
- 4.0 × 4.0mm 角、高さ1.2/ 1.5/2.0mm Max.
- 閉磁路構造、低直流抵抗
- 磁性材に鉄系磁性粉を用いた大電流対応
- 低コア鳴きノイズ
- DC-DCコンバータ用インダクタに最適
- RoHS指令対応、ハロゲンフリー

## TOKO STANDARD PART NUMBERS 東光 標準品一覧

### TYPE FDSD0412 (Quantity/reel; 4,000 PCS)

| 東光品番             | インダクタンス <sup>(1)</sup>         | 許容差           | 直流抵抗 <sup>(2)</sup>                           | 直流重量許容電流 <sup>(3)</sup>                                                                   | 温度上昇許容電流 <sup>(4)</sup>                                         |
|------------------|--------------------------------|---------------|-----------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| TOKO Part Number | Inductance <sup>(1)</sup> (μH) | Tolerance (%) | DC Resistance <sup>(2)</sup> (mΩ) Max. (Typ.) | Inductance Decrease Current <sup>(3)</sup> (A) Max. (Typ.)<br>$\frac{\Delta L}{L} = 30\%$ | Temperature Rise Current <sup>(4)</sup> ΔT=40°C (A) Max. (Typ.) |
| FDSD0412-H-R33M  | 0.33                           | ± 20          | 19 (16)                                       | 7.5 (10)                                                                                  | 6.4 (7.5)                                                       |
| FDSD0412-H-R47M  | 0.47                           | ± 20          | 23 (19)                                       | 6.5 (8.6)                                                                                 | 6.0 (7.0)                                                       |
| FDSD0412-H-1R0M  | 1.0                            | ± 20          | 44 (37)                                       | 4.7 (6.2)                                                                                 | 4.3 (5.0)                                                       |
| FDSD0412-H-1R2M  | 1.2                            | ± 20          | 48 (40)                                       | 4.5 (6.0)                                                                                 | 3.7 (4.3)                                                       |
| FDSD0412-H-1R5M  | 1.5                            | ± 20          | 64 (53)                                       | 4.1 (5.5)                                                                                 | 3.3 (3.8)                                                       |
| FDSD0412-H-2R2M  | 2.2                            | ± 20          | 84 (70)                                       | 3.5 (4.7)                                                                                 | 2.8 (3.3)                                                       |
| FDSD0412-H-3R3M  | 3.3                            | ± 20          | 122 (102)                                     | 2.8 (3.8)                                                                                 | 2.2 (2.6)                                                       |
| FDSD0412-H-4R7M  | 4.7                            | ± 20          | 161 (136)                                     | 2.5 (3.3)                                                                                 | 1.9 (2.2)                                                       |

### TYPE FDSD0415 (Quantity/reel; 4,000 PCS)

| 東光品番             | インダクタンス <sup>(1)</sup>         | 許容差           | 直流抵抗 <sup>(2)</sup>                           | 直流重量許容電流 <sup>(3)</sup>                                                                   | 温度上昇許容電流 <sup>(4)</sup>                                         |
|------------------|--------------------------------|---------------|-----------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| TOKO Part Number | Inductance <sup>(1)</sup> (μH) | Tolerance (%) | DC Resistance <sup>(2)</sup> (mΩ) Max. (Typ.) | Inductance Decrease Current <sup>(3)</sup> (A) Max. (Typ.)<br>$\frac{\Delta L}{L} = 30\%$ | Temperature Rise Current <sup>(4)</sup> ΔT=40°C (A) Max. (Typ.) |
| FDSD0415-H-R22M  | 0.22                           | ± 20          | 14 (11)                                       | 12 (16)                                                                                   | 7.7 (9.0)                                                       |
| FDSD0415-H-R47M  | 0.47                           | ± 20          | 18 (15)                                       | 9.0 (12)                                                                                  | 6.1 (7.2)                                                       |
| FDSD0415-H-1R0M  | 1.0                            | ± 20          | 41 (34)                                       | 5.3 (7.1)                                                                                 | 4.5 (5.3)                                                       |
| FDSD0415-H-1R5M  | 1.5                            | ± 20          | 47 (39)                                       | 5.0 (6.6)                                                                                 | 3.7 (4.3)                                                       |
| FDSD0415-H-2R2M  | 2.2                            | ± 20          | 65 (54)                                       | 4.1 (5.4)                                                                                 | 3.1 (3.6)                                                       |
| FDSD0415-H-3R3M  | 3.3                            | ± 20          | 95 (79)                                       | 3.4 (4.5)                                                                                 | 2.6 (3.1)                                                       |
| FDSD0415-H-4R7M  | 4.7                            | ± 20          | 120 (100)                                     | 2.9 (3.9)                                                                                 | 2.1 (2.5)                                                       |

continued on next page 次頁へ続く

### TOKO STANDARD PART NUMBERS 東光 標準品一覧

#### TYPE FDSD0420 (Quantity/reel; 2,000 PCS)

| 東光品番                   | インダクタンス <sup>(1)</sup>            | 許容差              | 直流抵抗 <sup>(2)</sup>                                 | 直流重畳許容電流 <sup>(3)</sup>                                                                         | 温度上昇許容電流 <sup>(4)</sup>                                                                        |
|------------------------|-----------------------------------|------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| TOKO<br>Part<br>Number | Inductance <sup>(1)</sup><br>(μH) | Tolerance<br>(%) | DC<br>Resistance <sup>(2)</sup><br>(mΩ) Max. (Typ.) | Inductance<br>Decrease Current <sup>(3)</sup><br>(A) Max. (Typ.)<br>$\frac{\Delta L}{L} = 30\%$ | Temperature<br>Rise Current <sup>(4)</sup><br>$\Delta T = 40^\circ\text{C}$<br>(A) Max. (Typ.) |
| FDSD0420-H-R47M        | 0.47                              | ± 20             | 18 (15)                                             | 9.4 (12)                                                                                        | 6.8 (8.0)                                                                                      |
| FDSD0420-H-R68M        | 0.68                              | ± 20             | 22 (18)                                             | 8.3 (11)                                                                                        | 6.5 (7.6)                                                                                      |
| FDSD0420-H-1R0M        | 1.0                               | ± 20             | 29 (24)                                             | 6.8 (9.0)                                                                                       | 5.1 (6.0)                                                                                      |
| FDSD0420-H-1R5M        | 1.5                               | ± 20             | 36 (30)                                             | 5.7 (7.7)                                                                                       | 4.3 (5.1)                                                                                      |
| FDSD0420-H-2R2M        | 2.2                               | ± 20             | 47 (39)                                             | 4.1 (5.5)                                                                                       | 3.6 (4.2)                                                                                      |
| FDSD0420-H-3R3M        | 3.3                               | ± 20             | 71 (59)                                             | 3.7 (4.9)                                                                                       | 2.9 (3.4)                                                                                      |
| FDSD0420-H-4R7M        | 4.7                               | ± 20             | 83 (69)                                             | 3.6 (4.6)                                                                                       | 2.7 (3.2)                                                                                      |
| FDSD0420-H-6R8M        | 6.8                               | ± 20             | 150 (125)                                           | 2.7 (3.6)                                                                                       | 1.9 (2.2)                                                                                      |
| FDSD0420-H-100M        | 10                                | ± 20             | 200 (165)                                           | 2.5 (3.3)                                                                                       | 1.7 (2.0)                                                                                      |

(1) Inductance is measured with a LCR meter 4284A (Agilent Technologies) or equivalent.  
Test frequency at 100kHz

(2) DC resistance is measured with 34420A (Agilent Technologies) or 3541 (HIOKI). (Reference ambient temperature 25°C)

(3) Inductance Decrease Current based upon 30% inductance reduction from the initial value

(4) Temperature Rise Current based upon 40°C temperature rise.  
(Reference ambient temperature 25°C)

(5) Absolute maximum voltage 30VDC.

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

(1) インダクタンスはLCR メータ4284A (Agilent Technologies) または同等品により測定する。

測定周波数は100kHz。

(2) 直流抵抗は測定器34420A (Agilent Technologies) または3541 (HIOKI) と同等品により測定する。(周囲温度25°C)

(3) 直流重畳許容電流：直流重畳電流を流した時インダクタンスの値が初期値より30%減少する直流電流値

(4) 温度上昇許容電流：コイルの温度が40°C上昇する値  
(周囲温度25°Cを基準とする。)

(5) 絶対最大電圧 30VDC

ご注意：業務用など、厳しい使用条件でのご使用をご検討の場合は必ず事前に弊社営業窓口までご相談ください。