

Wire-wound Inductors Power Inductors Unshielded Inductors

▶ Preview

Token SMD unshielded Power Wirewound Inductors (TPUDF) provide full range inductance. (TPUDF) series metalized drum core design utilizes board space and general use by Token's automatic wire wound technology and ferrite core.

The TPUDF wire-wound open magnetic circuit construction are particularly suitable for cost-critical mass applications and thanks to their surface-mounting capability. These material saving power inductors are ideal for applications such as storage chokes in DC/DC convertors as well as in the EMC sector.



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The TPUDF series is designed for DC-DC converter applications and features reduced DC resistance and increased allowable current. In DC-DC converters and power supplies, the performance of the power components directly affects the overall efficiency of the supply, so it is of paramount importance.

The TPUDF series features wide inductance range from 1.00 uH to 1000.00 uH. The TPU5022DF version has an insertion height of 7.11 mm with low DC resistance down to 0.009 Ohm. Available inductance values for the new TPU5022DF are from 1.00 uH to 1000.00 uH with rated current up to 20.00 A. Thanks to its temperature stability, it can be used in ambient temperatures ranging from -40°C to +85°C.

Token SMT unshielded wire wound inductors TPUDF series conforms to the RoHS directive and Lead-free. Custom parts are available on request for tighter tolerances. Application of specific designs also available including different inductance and frequency specifications adjusted to requirements. Please contact our sales for more information.

Features :

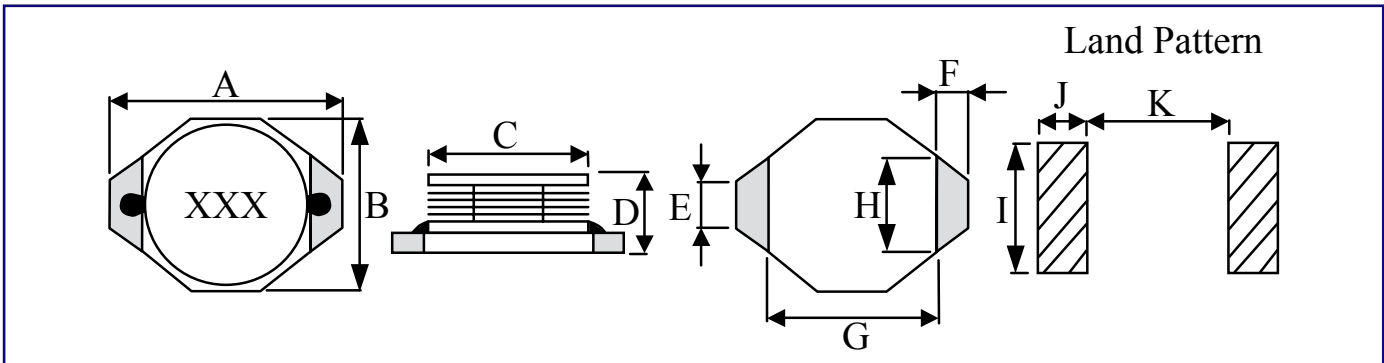
- Open magnetic circuit construction.
- High Current, Low DCR.

Applications :

- Notebook, Cellular Phone.
- DC/DC converter, PDA.

TOKEN TPUDF Unshielded Wirewound Inductors

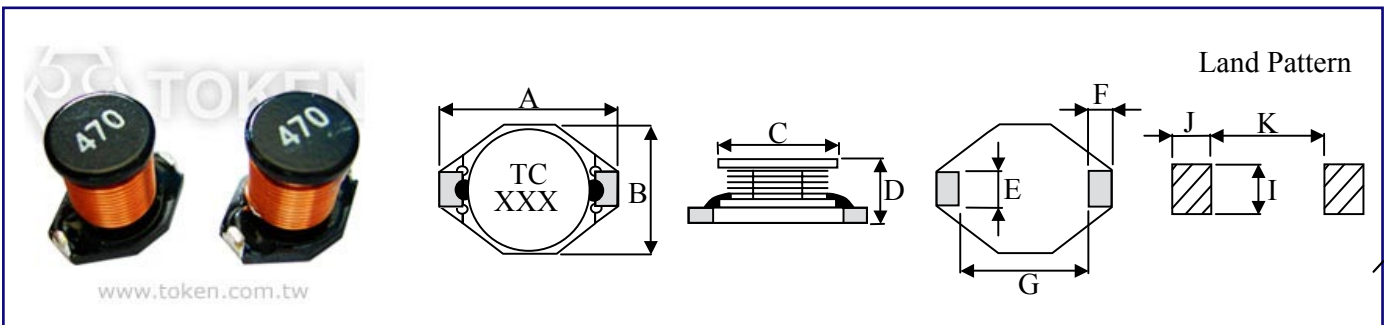
► Dimensions & Configurations (Unit: mm) (TPU1608DF)



| Type | A(max) | B(max) | C ± 0.3 | D(max) | E ± 0.3 | F ± 0.3 | G ± 0.3 | H ± 0.3 | I | J | K |
|-----------|--------|--------|---------|--------|---------|---------|---------|---------|------|------|------|
| TPU1608DF | 6.60 | 4.45 | 4.00 | 2.92 | 1.27 | 1.02 | 4.32 | 2.50 | 3.56 | 1.40 | 4.06 |

Note : Design as Customer's Requested Specifications.

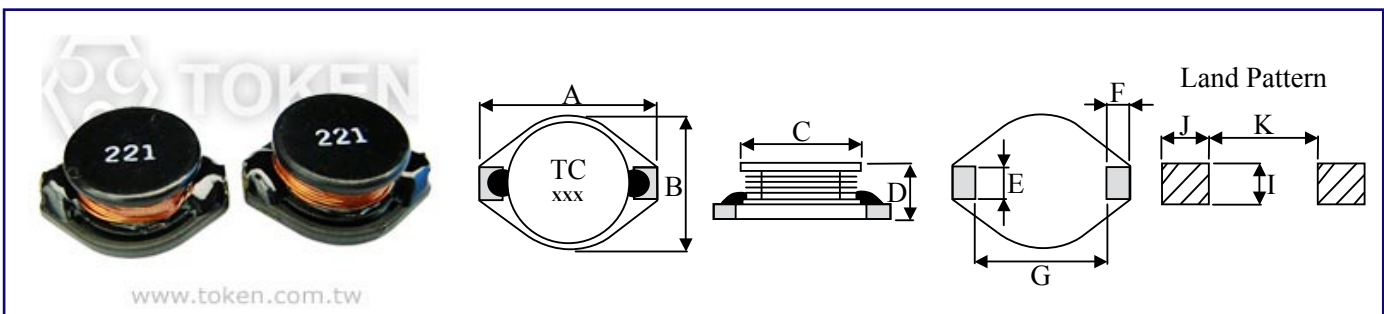
► Dimensions & Configurations (Unit: mm) (TPU3308DF, TPU3316DF, TPU3340DF)



| Type | A(max) | B(max) | C ± 0.3 | D(max) | E ± 0.3 | F ± 0.3 | G ± 0.3 | I | J | K |
|-----------|--------|--------|---------|--------|---------|---------|---------|------|------|------|
| TPU3308DF | 12.95 | 9.40 | 8.38 | 3.00 | 2.54 | 2.54 | 7.62 | 2.79 | 2.92 | 7.37 |
| TPU3316DF | 12.95 | 9.40 | 8.38 | 5.21 | 2.54 | 2.54 | 7.62 | 2.79 | 2.92 | 7.37 |
| TPU3340DF | 12.95 | 9.40 | 8.38 | 11.43 | 2.54 | 2.54 | 7.62 | 2.79 | 2.92 | 7.37 |

Note : Design as Customer's Requested Specifications.

► Dimensions & Configurations (Unit: mm) (TPU5022DF)



| 型號 | A(max) | B(max) | C ± 0.3 | D(max) | E ± 0.3 | F ± 0.3 | G ± 0.3 | I | J | K |
|-----------|--------|--------|---------|--------|---------|---------|---------|------|------|-------|
| TPU5022DF | 18.54 | 15.24 | 12.70 | 7.11 | 2.54 | 2.54 | 12.70 | 2.79 | 2.92 | 12.45 |

Note : Design as Customer's Requested Specifications.

▶ Electrical Characteristics (TPU1608DF)

| Part Number | Inductance (μH) | Test Freq. (KHz) | DCR (Ω) (max) | IDC (A) (max) |
|------------------|------------------------------|------------------|------------------------|---------------|
| TPU1608DF - 1R0M | 1.00 | 100 | 0.050 | 2.90 |
| TPU1608DF - 1R5M | 1.50 | 100 | 0.050 | 2.60 |
| TPU1608DF - 2R2M | 2.20 | 100 | 0.070 | 2.30 |
| TPU1608DF - 3R3M | 3.30 | 100 | 0.080 | 2.00 |
| TPU1608DF - 4R7M | 4.70 | 100 | 0.090 | 1.50 |
| TPU1608DF - 6R8M | 6.80 | 100 | 0.130 | 1.20 |
| TPU1608DF - 100M | 10.00 | 100 | 0.160 | 1.10 |
| TPU1608DF - 150M | 15.00 | 100 | 0.230 | 0.90 |
| TPU1608DF - 220M | 22.00 | 100 | 0.370 | 0.70 |
| TPU1608DF - 330M | 33.00 | 100 | 0.510 | 0.58 |
| TPU1608DF - 470M | 47.00 | 100 | 0.640 | 0.50 |
| TPU1608DF - 680M | 68.00 | 100 | 0.860 | 0.40 |
| TPU1608DF - 101M | 100.00 | 100 | 1.270 | 0.31 |
| TPU1608DF - 151M | 150.00 | 100 | 2.000 | 0.27 |
| TPU1608DF - 221M | 220.00 | 100 | 3.110 | 0.22 |
| TPU1608DF - 331M | 330.00 | 100 | 3.800 | 0.18 |
| TPU1608DF - 471M | 470.00 | 100 | 5.060 | 0.16 |
| TPU1608DF - 681M | 680.00 | 100 | 9.200 | 0.14 |
| TPU1608DF - 102M | 1000.00 | 100 | 13.800 | 0.10 |

Note: Test Freq.: 100KHz / 0.1V.
 Operating Temp.: -40°C ~ +85°C.
 Inductance drop=10% typ. at IDC.

▶ Electrical Characteristics (TPU3308DF)

| Part Number | Inductance (μH) | Test Freq. (KHz) | DCR (Ω) (max) | IDC (A) (max) |
|------------------|------------------------------|------------------|------------------------|---------------|
| TPU3308DF - 100M | 10.00 | 100 | 0.110 | 2.40 |
| TPU3308DF - 150M | 15.00 | 100 | 0.150 | 2.00 |
| TPU3308DF - 220M | 22.00 | 100 | 0.230 | 1.60 |
| TPU3308DF - 330M | 33.00 | 100 | 0.300 | 1.40 |
| TPU3308DF - 470M | 47.00 | 100 | 0.390 | 1.00 |
| TPU3308DF - 680M | 68.00 | 100 | 0.660 | 0.90 |
| TPU3308DF - 101M | 100.00 | 100 | 0.840 | 0.70 |
| TPU3308DF - 151M | 150.00 | 100 | 1.200 | 0.60 |
| TPU3308DF - 221M | 220.00 | 100 | 1.900 | 0.50 |
| TPU3308DF - 331M | 330.00 | 100 | 2.700 | 0.40 |
| TPU3308DF - 471M | 470.00 | 100 | 4.000 | 0.30 |
| TPU3308DF - 681M | 680.00 | 100 | 5.300 | 0.20 |
| TPU3308DF - 102M | 1000.00 | 100 | 8.400 | 0.10 |

Note: Test Freq.: 100KHz / 0.1V.

Operating Temp.: -40°C ~ +85°C.

Inductance drop=10% typ. at IDC.

▶ Electrical Characteristics (TPU3316DF)

| Part Number | Inductance (μH) | Test Freq. (KHz) | DCR (Ω) (max) | IDC (A) (max) |
|------------------|------------------------------|------------------|------------------------|---------------|
| TPU3316DF - 1R0M | 1.00 | 100 | 0.009 | 9.00 |
| TPU3316DF - 1R5M | 1.50 | 100 | 0.010 | 8.00 |
| TPU3316DF - 2R2M | 2.20 | 100 | 0.012 | 7.00 |
| TPU3316DF - 3R3M | 3.30 | 100 | 0.015 | 6.40 |
| TPU3316DF - 4R7M | 4.70 | 100 | 0.018 | 5.40 |
| TPU3316DF - 6R8M | 6.80 | 100 | 0.027 | 4.60 |
| TPU3316DF - 100M | 10.00 | 100 | 0.038 | 3.80 |
| TPU3316DF - 150M | 15.00 | 100 | 0.046 | 3.00 |
| TPU3316DF - 220M | 22.00 | 100 | 0.085 | 2.60 |
| TPU3316DF - 330M | 33.00 | 100 | 0.100 | 2.00 |
| TPU3316DF - 470M | 47.00 | 100 | 0.140 | 1.60 |
| TPU3316DF - 680M | 68.00 | 100 | 0.200 | 1.40 |
| TPU3316DF - 101M | 100.00 | 100 | 0.280 | 1.20 |
| TPU3316DF - 151M | 150.00 | 100 | 0.400 | 1.00 |
| TPU3316DF - 221M | 220.00 | 100 | 0.610 | 0.80 |
| TPU3316DF - 331M | 330.00 | 100 | 1.020 | 0.60 |
| TPU3316DF - 471M | 470.00 | 100 | 1.270 | 0.50 |
| TPU3316DF - 681M | 680.00 | 100 | 2.020 | 0.40 |
| TPU3316DF - 102M | 1000.00 | 100 | 3.000 | 0.30 |

Note: Test Freq.: 100KHz / 0.1V.

Operating Temp.: -40°C ~ +85°C.

Inductance drop=10% typ. at IDC.

▶ Electrical Characteristics (TPU3340DF)

| Part Number | Inductance (μH) | Test Freq. (KHz) | DCR (Ω) (max) | IDC (A) (max) |
|------------------|------------------------------|------------------|------------------------|---------------|
| TPU3340DF - 100M | 10.00 | 100 | 0.040 | 8.00 |
| TPU3340DF - 150M | 15.00 | 100 | 0.050 | 7.00 |
| TPU3340DF - 220M | 22.00 | 100 | 0.066 | 5.50 |
| TPU3340DF - 330M | 33.00 | 100 | 0.080 | 4.00 |
| TPU3340DF - 470M | 47.00 | 100 | 0.110 | 3.80 |
| TPU3340DF - 680M | 68.00 | 100 | 0.170 | 3.00 |
| TPU3340DF - 101M | 100.00 | 100 | 0.220 | 2.50 |
| TPU3340DF - 151M | 150.00 | 100 | 0.340 | 2.00 |
| TPU3340DF - 221M | 220.00 | 100 | 0.440 | 1.60 |
| TPU3340DF - 331M | 330.00 | 100 | 0.700 | 1.20 |
| TPU3340DF - 471M | 470.00 | 100 | 0.950 | 1.00 |
| TPU3340DF - 681M | 680.00 | 100 | 1.200 | 1.00 |
| TPU3340DF - 102M | 1000.00 | 100 | 2.000 | 0.80 |

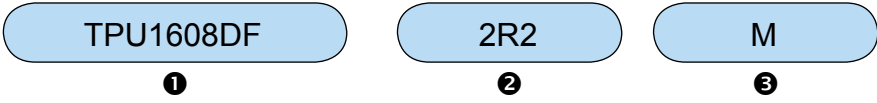
Note: Test Freq.: 100KHz / 0.1V.
 Operating Temp.: -40°C ~ +85°C.
 Inductance drop=10% typ. at IDC.

▶ Electrical Characteristics (TPU5022DF)

| Part Number | Inductance (μH) | Test Freq. (KHz) | DCR (Ω) (max) | IDC (A) (max) |
|------------------|------------------------------|------------------|------------------------|---------------|
| TPU5022DF - 1R0M | 1.00 | 100 | 0.009 | 20.00 |
| TPU5022DF - 2R2M | 2.20 | 100 | 0.014 | 16.00 |
| TPU5022DF - 3R3M | 3.30 | 100 | 0.015 | 14.00 |
| TPU5022DF - 5R6M | 5.60 | 100 | 0.020 | 12.00 |
| TPU5022DF - 100M | 10.00 | 100 | 0.031 | 10.00 |
| TPU5022DF - 150M | 15.00 | 100 | 0.036 | 8.00 |
| TPU5022DF - 220M | 22.00 | 100 | 0.047 | 7.00 |
| TPU5022DF - 330M | 33.00 | 100 | 0.066 | 5.50 |
| TPU5022DF - 470M | 47.00 | 100 | 0.086 | 4.50 |
| TPU5022DF - 680M | 68.00 | 100 | 0.130 | 3.50 |
| TPU5022DF - 101M | 100.00 | 100 | 0.190 | 3.00 |
| TPU5022DF - 151M | 150.00 | 100 | 0.250 | 2.60 |
| TPU5022DF - 221M | 220.00 | 100 | 0.380 | 2.40 |
| TPU5022DF - 331M | 330.00 | 100 | 0.560 | 1.90 |
| TPU5022DF - 471M | 470.00 | 100 | 0.850 | 1.40 |
| TPU5022DF - 681M | 680.00 | 100 | 1.100 | 1.20 |
| TPU5022DF - 102M | 1000.00 | 100 | 1.800 | 1.00 |

Note: Test Freq.: 100KHz / 0.1V.
 Operating Temp.: -40°C ~ +85°C.
 Inductance drop=10% typ. at IDC.

How to Order



❶ Part Number: TPU1608DF, TPU3308DF
 TPU3316DF, TPU3340DF, TPU5022DF

❷ Inductance

| Code | Inductance |
|------|------------|
| 1R0 | 1.00μH |
| 100 | 10.00μH |
| 101 | 100.00μH |
| 102 | 1000.00μH |

❸ Tolerance

| Code | Tolerance |
|------|-----------|
| K | 10% |
| L | 15% |
| M | 20% |
| N | 30% |

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