

# Power Inductors

## Unshielded Inductors

### Wirewound Inductors

#### ► Preview

Token's Power Inductors utilize wire wound technology enabling up to 30A high current. Token SMD unshielded (TPUDHP) series utilize wire wound technology with open magnetic circuit construction enabling cost-effective in manufacturing high rated current, low ohmic resistance products.

The power (TPUDHP) inductors are wound around a ferrite core and are particularly suitable for cost-critical mass applications with their surface-mounting capability. These material saving (TPUDHP) inductors are ideal for applications such as storage chokes in DC/DC convertors as well as in the EMC sector.



TPU3316DHP wire wound with Mn-Zn material core rugged self-leaded construction composites for low-voltage and large-current DC-DC converter. Available inductance values for the TPU3316DHP are from 0.33 uH to 4.70 uH with rated current up to 20.00 A.

TPU1813DHP rugged self-leaded construction with advance wire wound technology enables large current, lower DCR, and less than 4.7mm height. It is ideal for high power DC-DC applications. Inductance values for the TPU1813DHP are from 0.56 uH to 47.00 uH with rated current up to 7.70 A.

TPU5022DHP's self-leaded and open magnetic circuit construction is specified for high current applications with up to 30.00 A IDC. Inductance range from 0.78 uH to 15.00 uH.

Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements, please contact our sales for more information.

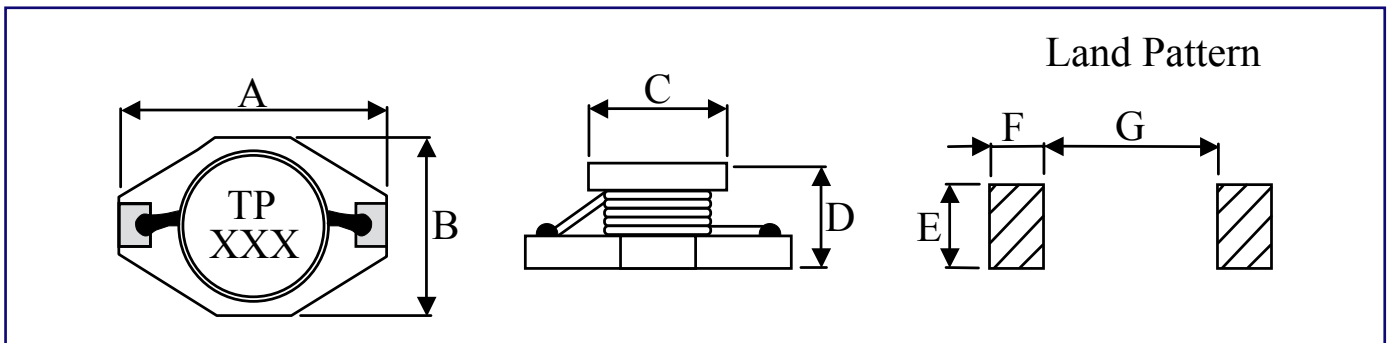
#### Features :

- Compact size and thin.
- Open magnetic circuit construction.
- Large current and lower DCR.

#### Applications :

- Notebook, DC-DC applications.
- power supply applications.

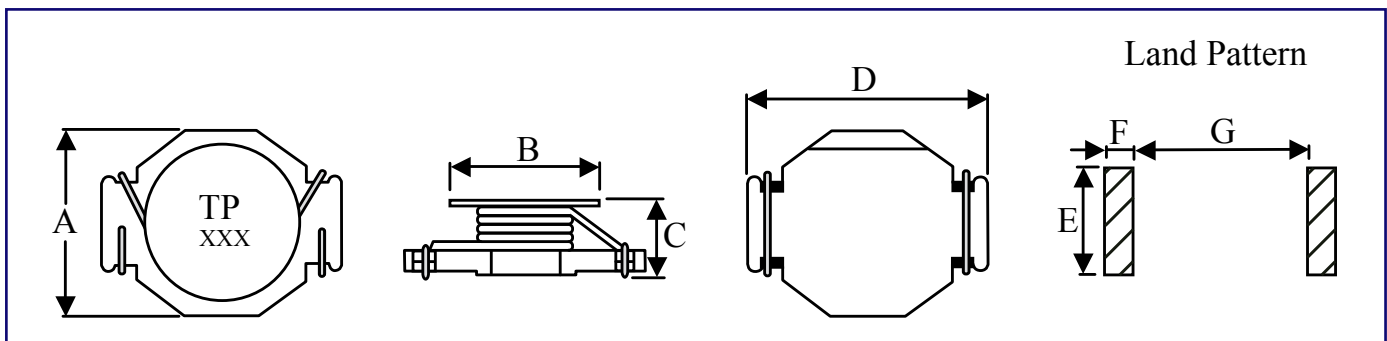
**▶ Dimensions & Configurations (Unit: mm) (TPU1813DHP)**



Type	A(max)	B(max)	C ± 0.2	D(max)	E	F	G
TPU1813DHP	9.10	6.10	4.80	4.70	3.50	2.20	4.80

**Note :** Design as Customer's Requested Specifications.

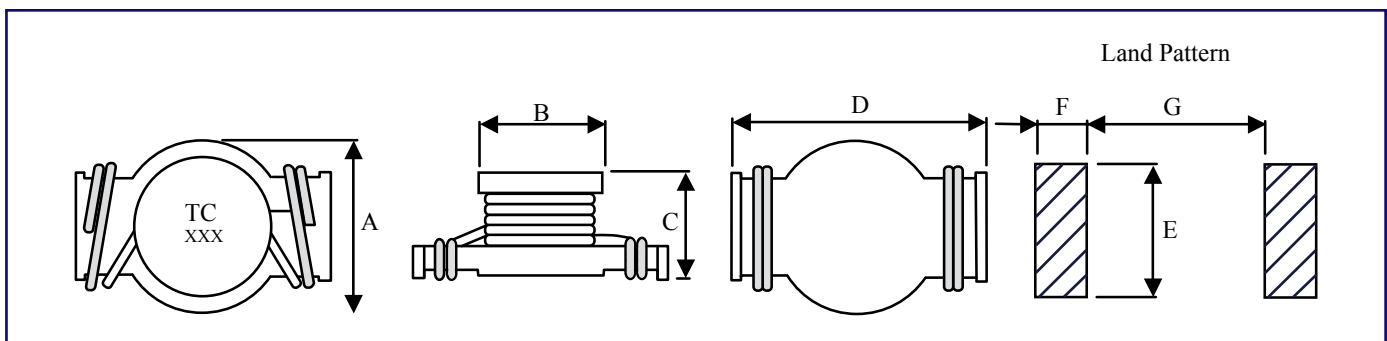
**▶ Dimensions & Configurations (Unit: mm) (TPU3316DHP)**



Type	A(max)	B ± 0.3	C(max)	D(max)	E	F	G
TPU3316DHP	9.91	8.38	6.35	13.21	4.06	1.52	8.64

**Note :** Power inductor can be custom design as customer's requested specifications.

**▶ Dimensions & Configurations (Unit: mm) (TPU5022DHP)**



Type	A(max)	B ± 0.3	C(max)	D(max)	E	F	G
TPU5022DHP	16.26	12.70	8.00	22.35	8.64	3.18	14.35

**Note :** Design as Customer's Requested Specifications.

## ▶ Electrical Characteristics (TPU1813DHP)

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
TPU1813DHP - R56N	0.56	100	0.010	7.70
TPU1813DHP - 1R2M	1.20	100	0.017	5.30
TPU1813DHP - 2R2M	2.20	100	0.035	3.50
TPU1813DHP - 4R7M	4.70	100	0.054	2.60
TPU1813DHP - 100M	10.00	100	0.111	1.90
TPU1813DHP - 150M	15.00	100	0.170	1.50
TPU1813DHP - 220M	22.00	100	0.250	1.20
TPU1813DHP - 330M	33.00	100	0.350	0.99
TPU1813DHP - 470M	47.00	100	0.470	0.87

**Note:** Test Freq.: 100KHz / 0.25V.  
 Operating Temp.: -40°C ~ +85°C.  
 Inductance drop=10% typ. at IDC.

## ▶ Electrical Characteristics (TPU3316DHP)

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
TPU3316DHP - R33N	0.33	100	0.002	20.00
TPU3316DHP - R68N	0.68	100	0.005	13.00
TPU3316DHP - 1R0N	1.00	100	0.006	11.00
TPU3316DHP - 1R5M	1.50	100	0.008	9.00
TPU3316DHP - 2R2M	2.20	100	0.011	7.80
TPU3316DHP - 2R7M	2.70	100	0.012	7.00
TPU3316DHP - 3R3M	3.30	100	0.014	6.40
TPU3316DHP - 4R7M	4.70	100	0.018	5.40

**Note:** Test Freq.: 100KHz / 0.25V.  
 Operating Temp.: -40°C ~ +85°C.  
 Inductance drop=10% typ. at IDC.

## ▶ Electrical Characteristics (TPU5022DHP)

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
TPU5022DHP - R78N	0.78	100	0.0026	30.00
TPU5022DHP - 1R5M	1.50	100	0.0040	25.00
TPU5022DHP - 2R2M	2.20	100	0.0061	20.00
TPU5022DHP - 3R3M	3.30	100	0.0086	17.00
TPU5022DHP - 3R9M	3.90	100	0.010	15.00
TPU5022DHP - 4R7M	4.70	100	0.014	13.00
TPU5022DHP - 6R0M	6.00	100	0.017	12.00
TPU5022DHP - 7R8M	7.80	100	0.018	11.00
TPU5022DHP - 100M	10.00	100	0.026	10.00
TPU5022DHP - 150M	15.00	100	0.032	8.00

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

**(TPU1813DHP, TPU3316DHP, TPU5022DHP) How to Order**

TPU1813DHP

❶

4R7

❷

M

❸

❶ Part Number: TPU1813DHP, PU3316DHP, TPU5022DHP

❷ Inductance

Code	Inductance
R56	0.56 $\mu$ H
4R7	4.70 $\mu$ H
100	10.00 $\mu$ H

❸ Tolerance

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

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