

# High Current Inductors Wire Wound Inductors Low Profile Inductors

## Surface Mount Low DCR Low Profile Wirewound Inductors TPSDS Series

### ► Preview

Token (TPSDS) SMD Wirewound Inductor packs low dcr, low profile, high current all in one. Token's new (TPSDS) power inductor series has improved and combined three key factors of low direct current resistance (DCR), high-current, and low-profile in one package.

This consists of the internal wound coil being packed tightly with magnetic iron powder and a shielded case that helps the inductor to produce a much lower audible noise.

Token SMT shielded power inductors (TPSDS) series conform to the RoHS directive and Lead-free. Application of specific designs also available including different inductance and frequency specifications adjusted to requirements. Please contact our sales for more information.



### Inductor Selection Overview :

- 1. TPSDS0620:(6.3 x 6.2 x 2.0 mm); 1.00 $\mu$ H ~ 47.00 $\mu$ H; DCR 0.022 $\Omega$  ~ 0.730 $\Omega$ ; IDC 3.50A ~ 0.50A.
- 2. TPSDS0625:(6.3 x 6.2 x 2.5 mm); 1.00 $\mu$ H ~ 100.00 $\mu$ H; DCR 0.018 $\Omega$  ~ 0.800 $\Omega$ ; IDC 3.48A ~ 0.33A.
- 3. TPSDS0630:(6.3 x 6.2 x 3.0 mm); 1.00 $\mu$ H ~ 150.00 $\mu$ H; DCR 0.017 $\Omega$  ~ 0.750 $\Omega$ ; IDC 3.59A ~ 0.31A.
- 4. TPSDS0635:(6.3 x 6.2 x 3.5 mm); 2.00 $\mu$ H ~ 150.00 $\mu$ H; DCR 0.020 $\Omega$  ~ 0.650 $\Omega$ ; IDC 3.00A ~ 0.37A.
- 5. TPSDS104:(10.4 x 10.3 x 3.5 mm); 1.10 $\mu$ H ~ 120.00 $\mu$ H; DCR 0.011 $\Omega$  ~ 0.460 $\Omega$ ; IDC 11.70A ~ 0.97A.
- 6. TPSDS106:(10.4 x 10.3 x 6.8 mm); 1.10 $\mu$ H ~ 680.00 $\mu$ H; DCR 0.014 $\Omega$  ~ 1.500 $\Omega$ ; IDC 7.00A ~ 0.47A.
- 7. TPSDS126:(12.8 x 12.6 x 6.8 mm); 1.70 $\mu$ H ~ 680.00 $\mu$ H; DCR 0.010 $\Omega$  ~ 1.120 $\Omega$ ; IDC 11.80A ~ 0.55A.

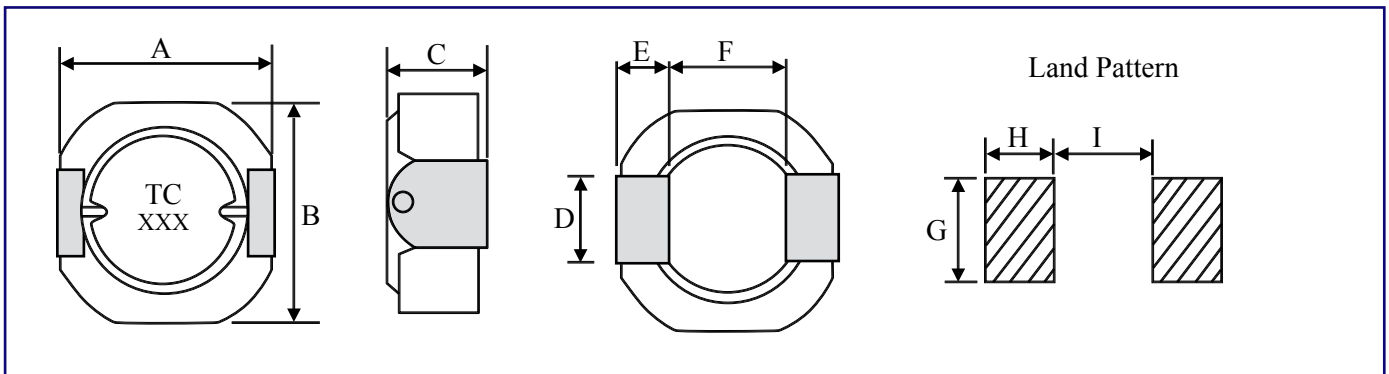
### Features :

- 1. Compact and thin
- 2. Large Current and Low DCR
- 3. Magnetically shielded construction

### Applications :

- 1. TV game, Computer devices
- 2. Ideal for a variety of DC-DC converter inductor applications.

## Dimensions & Configurations (TPSDS)



Type	A(max)	B(max)	C(max)	D ± 0.2	E(max)	F	G	H	I
TPSDS0620	6.3	6.2	2.0	2.0	0.6	4.6	2.6	1.0	4.6
TPSDS0625	6.3	6.2	2.5	2.0	0.6	4.6	2.6	1.0	4.6
TPSDS0630	6.3	6.2	3.0	2.0	0.6	4.6	2.6	1.0	4.6
TPSDS0635	6.3	6.2	3.5	2.0	0.6	4.6	2.6	1.0	4.6
TPSDS104	10.4	10.3	4.8	3.0	2.0	6.0	3.6	2.65	5.4
TPSDS106	10.4	10.3	6.8	3.0	2.0	6.0	3.6	2.65	5.4
TPSDS126	12.8	12.6	6.8	3.0	2.0	8.5	3.6	2.60	7.9

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

## Electrical Characteristics (TPSDS0620)

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
TPSDS0620 - 1R0N	1.00	100	0.022	3.50
TPSDS0620 - 1R5N	1.50	100	0.030	2.94
TPSDS0620 - 2R0N	2.00	100	0.040	2.47
TPSDS0620 - 3R3N	3.30	100	0.055	1.99
TPSDS0620 - 4R7N	4.70	100	0.070	1.59
TPSDS0620 - 6R2N	6.20	100	0.110	1.49
TPSDS0620 - 8R2N	8.20	100	0.140	1.25
TPSDS0620 - 100M	10.00	100	0.160	1.22
TPSDS0620 - 120M	12.00	100	0.200	0.99
TPSDS0620 - 150M	15.00	100	0.230	0.94
TPSDS0620 - 180M	18.00	100	0.260	0.83
TPSDS0620 - 220M	22.00	100	0.310	0.80
TPSDS0620 - 270M	27.00	100	0.390	0.65
TPSDS0620 - 330M	33.00	100	0.510	0.63
TPSDS0620 - 390M	39.00	100	0.570	0.55
TPSDS0620 - 470M	47.00	100	0.730	0.50

**Note:** Test Freq.: 100KHz / 0.1V.  
 Operating Temp.: -40°C ~ +85°C.  
 Inductance drop=30% typ. at IDC.

# **TOKEN TPSDS Wirewound High Current Inductors**

## ▶ Electrical Characteristics (TPSDS0625)

Part Number	Inductance ( $\mu$ H)	Test Freq. (KHz)	DCR ( $\Omega$ ) (max)	IDC (A) (max)
TPSDS0625 - 1R0N	1.00	100	0.018	3.48
TPSDS0625 - 1R5N	1.50	100	0.024	2.83
TPSDS0625 - 2R0N	2.00	100	0.032	2.44
TPSDS0625 - 3R3N	3.30	100	0.045	1.89
TPSDS0625 - 4R3N	4.30	100	0.055	1.65
TPSDS0625 - 6R2N	6.20	100	0.065	1.37
TPSDS0625 - 100M	10.00	100	0.095	1.07
TPSDS0625 - 120M	12.00	100	0.120	0.97
TPSDS0625 - 150M	15.00	100	0.150	0.87
TPSDS0625 - 180M	18.00	100	0.180	0.79
TPSDS0625 - 220M	22.00	100	0.210	0.71
TPSDS0625 - 270M	27.00	100	0.240	0.64
TPSDS0625 - 330M	33.00	100	0.280	0.58
TPSDS0625 - 390M	39.00	100	0.330	0.53
TPSDS0625 - 470M	47.00	100	0.390	0.48
TPSDS0625 - 560M	56.00	100	0.450	0.44
TPSDS0625 - 680M	68.00	100	0.560	0.40
TPSDS0625 - 820M	82.00	100	0.620	0.36
TPSDS0625 - 101M	100.00	100	0.800	0.33

**Note:** Test Freq.: 100KHz / 0.1V.  
Operating Temp.: -40°C ~ +85°C.  
Inductance drop=30% typ. at IDC.

# **TOKEN TPSDS Wirewound High Current Inductors**

## **Electrical Characteristics (TPSDS0630)**

Part Number	Inductance ( $\mu$ H)	Test Freq. (KHz)	DCR ( $\Omega$ ) (max)	IDC (A) (max)
TPSDS0630 - 1R0N	1.00	100	0.017	3.59
TPSDS0630 - 1R5N	1.50	100	0.021	2.93
TPSDS0630 - 2R2N	2.20	100	0.024	2.42
TPSDS0630 - 3R6N	3.60	100	0.033	1.89
TPSDS0630 - 4R7N	4.70	100	0.042	1.66
TPSDS0630 - 6R2N	6.20	100	0.050	1.45
TPSDS0630 - 100M	10.00	100	0.065	1.14
TPSDS0630 - 120M	12.00	100	0.072	1.04
TPSDS0630 - 150M	15.00	100	0.096	0.93
TPSDS0630 - 180M	18.00	100	0.103	0.85
TPSDS0630 - 220M	22.00	100	0.132	0.77
TPSDS0630 - 270M	27.00	100	0.160	0.70
TPSDS0630 - 330M	33.00	100	0.180	0.63
TPSDS0630 - 390M	39.00	100	0.200	0.58
TPSDS0630 - 470M	47.00	100	0.250	0.53
TPSDS0630 - 560M	56.00	100	0.300	0.48
TPSDS0630 - 680M	68.00	100	0.360	0.44
TPSDS0630 - 820M	82.00	100	0.450	0.40
TPSDS0630 - 101M	100.00	100	0.560	0.36
TPSDS0630 - 151M	150.00	100	0.750	0.31

**Note:** Test Freq.: 100KHz / 0.1V.  
Operating Temp.: -40°C ~ +85°C.  
Inductance drop=30% typ. at IDC.

# **TOKEN TPSDS Wirewound High Current Inductors**

## ▶ Electrical Characteristics (TPSDS0635)

Part Number	Inductance ( $\mu$ H)	Test Freq. (KHz)	DCR ( $\Omega$ ) (max)	IDC (A) (max)
TPSDS0635 - 2R0N	2.00	100	0.020	3.00
TPSDS0635 - 2R7N	2.70	100	0.025	2.69
TPSDS0635 - 3R3N	3.30	100	0.030	2.57
TPSDS0635 - 4R7N	4.70	100	0.035	2.08
TPSDS0635 - 6R2N	6.20	100	0.040	1.84
TPSDS0635 - 8R2N	8.20	100	0.055	1.54
TPSDS0635 - 100M	10.00	100	0.065	1.49
TPSDS0635 - 120M	12.00	100	0.072	1.28
TPSDS0635 - 150M	15.00	100	0.078	1.10
TPSDS0635 - 180M	18.00	100	0.098	1.05
TPSDS0635 - 220M	22.00	100	0.115	0.97
TPSDS0635 - 270M	27.00	100	0.150	0.82
TPSDS0635 - 330M	33.00	100	0.175	0.76
TPSDS0635 - 390M	39.00	100	0.200	0.70
TPSDS0635 - 470M	47.00	100	0.240	0.68
TPSDS0635 - 560M	56.00	100	0.300	0.60
TPSDS0635 - 680M	68.00	100	0.330	0.56
TPSDS0635 - 820M	82.00	100	0.420	0.47
TPSDS0635 - 101M	100.00	100	0.470	0.45
TPSDS0635 - 151M	150.00	100	0.650	0.37

**Note:** Test Freq.: 100KHz / 0.1V.  
 Operating Temp.: -40°C ~ +85°C.  
 Inductance drop=30% typ. at IDC.

## ▶ Electrical Characteristics (TPSDS104)

Part Number	Inductance ( $\mu\text{H}$ )	Test Freq. (KHz)	DCR ( $\Omega$ ) (max)	IDC (A) (max)
TPSDS104 - 1R1N	1.10	100	0.011	11.70
TPSDS104 - 1R8N	1.80	100	0.014	8.70
TPSDS104 - 2R7N	2.70	100	0.016	7.30
TPSDS104 - 3R9N	3.90	100	0.018	5.80
TPSDS104 - 5R1N	5.10	100	0.026	4.90
TPSDS104 - 6R8N	6.80	100	0.035	4.50
TPSDS104 - 8R2N	8.20	100	0.040	4.10
TPSDS104 - 100M	10.00	100	0.044	3.60
TPSDS104 - 120M	12.00	100	0.051	3.30
TPSDS104 - 150M	15.00	100	0.062	3.10
TPSDS104 - 180M	18.00	100	0.079	2.70
TPSDS104 - 220M	22.00	100	0.087	2.40
TPSDS104 - 270M	27.00	100	0.100	2.20
TPSDS104 - 330M	33.00	100	0.125	2.00
TPSDS104 - 390M	39.00	100	0.150	1.80
TPSDS104 - 470M	47.00	100	0.175	1.70
TPSDS104 - 560M	56.00	100	0.195	1.50
TPSDS104 - 680M	68.00	100	0.240	1.30
TPSDS104 - 820M	82.00	100	0.295	1.20
TPSDS104 - 101M	100.00	100	0.380	1.10
TPSDS104 - 121M	120.00	100	0.460	0.97

**Note:** Test Freq.: 100KHz / 0.1V.  
 Operating Temp.: -40°C ~ +85°C.  
 Inductance drop=30% typ. at IDC.

# **TOKEN TPSDS Wirewound High Current Inductors**

## ▶ Electrical Characteristics (TPSDS106)

Part Number	Inductance ( $\mu$ H)	Test Freq. (KHz)	DCR ( $\Omega$ ) (max)	IDC (A) (max)
TPSDS106 - 1R1N	1.10	100	0.014	7.00
TPSDS106 - 1R8N	1.80	100	0.018	6.50
TPSDS106 - 2R7N	2.70	100	0.020	6.00
TPSDS106 - 3R5N	3.50	100	0.022	5.60
TPSDS106 - 4R7N	4.70	100	0.024	5.20
TPSDS106 - 6R0N	6.00	100	0.026	4.80
TPSDS106 - 7R5N	7.50	100	0.030	4.20
TPSDS106 - 100M	10.00	100	0.035	4.00
TPSDS106 - 120M	12.00	100	0.040	3.50
TPSDS106 - 150M	15.00	100	0.050	3.20
TPSDS106 - 180M	18.00	100	0.060	3.00
TPSDS106 - 220M	22.00	100	0.065	2.60
TPSDS106 - 270M	27.00	100	0.075	2.20
TPSDS106 - 330M	33.00	100	0.095	2.00
TPSDS106 - 390M	39.00	100	0.110	1.90
TPSDS106 - 470M	47.00	100	0.135	1.80
TPSDS106 - 560M	56.00	100	0.145	1.70
TPSDS106 - 680M	68.00	100	0.155	1.60
TPSDS106 - 820M	82.00	100	0.185	1.50
TPSDS106 - 101M	100.00	100	0.220	1.40
TPSDS106 - 121M	120.00	100	0.255	1.30
TPSDS106 - 151M	150.00	100	0.280	1.10
TPSDS106 - 181M	180.00	100	0.350	1.00
TPSDS106 - 221M	220.00	100	0.460	0.85
TPSDS106 - 271M	270.00	100	0.600	0.70
TPSDS106 - 331M	330.00	100	0.700	0.60
TPSDS106 - 391M	390.00	100	0.860	0.55
TPSDS106 - 471M	470.00	100	1.100	0.53
TPSDS106 - 561M	560.00	100	1.250	0.50
TPSDS106 - 681M	680.00	100	1.500	0.47

**Note:** Test Freq.: 100KHz / 0.1V.  
 Operating Temp.: -40°C ~ +85°C.  
 Inductance drop=30% typ. at IDC.

## Electrical Characteristics (TPSDS126)

Part Number	Inductance ( $\mu\text{H}$ )	Test Freq. (KHz)	DCR ( $\Omega$ ) (max)	IDC (A) (max)
TPSDS126 - 1R7N	1.70	100	0.010	11.80
TPSDS126 - 2R7N	2.70	100	0.011	9.00
TPSDS126 - 3R9N	3.90	100	0.014	7.90
TPSDS126 - 5R6N	5.60	100	0.016	6.80
TPSDS126 - 7R5N	7.50	100	0.017	5.70
TPSDS126 - 100N	10.00	100	0.023	5.50
TPSDS126 - 120N	12.00	100	0.027	5.00
TPSDS126 - 150N	15.00	100	0.032	4.50
TPSDS126 - 180N	18.00	100	0.040	4.10
TPSDS126 - 220N	22.00	100	0.046	3.60
TPSDS126 - 270N	27.00	100	0.050	3.20
TPSDS126 - 330M	33.00	100	0.064	3.00
TPSDS126 - 390M	39.00	100	0.074	2.70
TPSDS126 - 470M	47.00	100	0.082	2.40
TPSDS126 - 560M	56.00	100	0.105	2.00
TPSDS126 - 680M	68.00	100	0.120	1.70
TPSDS126 - 820M	82.00	100	0.145	1.60
TPSDS126 - 101M	100.00	100	0.170	1.50
TPSDS126 - 121M	120.00	100	0.185	1.30
TPSDS126 - 151M	150.00	100	0.235	1.20
TPSDS126 - 181M	180.00	100	0.290	1.10
TPSDS126 - 221M	220.00	100	0.350	1.00
TPSDS126 - 271M	270.00	100	0.415	0.93
TPSDS126 - 331M	330.00	100	0.495	0.83
TPSDS126 - 391M	390.00	100	0.610	0.76
TPSDS126 - 471M	470.00	100	0.705	0.67
TPSDS126 - 561M	560.00	100	0.900	0.62
TPSDS126 - 681M	680.00	100	1.120	0.55

**Note:** Test Freq.: 100KHz / 0.1V.  
 Operating Temp.: -40°C ~ +85°C.  
 Inductance drop=30% typ. at IDC.

## ▶ How to Order

TPSDS0620

❶

1R1

❷

N

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- ❶ Part Number: TPSDS0620, TPSDS0625,  
TPSDS0630, TPSDS0635,  
TPSDS104, TPSDS106, TPSDS126

### ❷ Inductance

Code	Inductance
1R1	1.10 $\mu$ H
120	12.00 $\mu$ H
121	120.00 $\mu$ H

### ❸ Tolerance

Code	Tolerance
M	20%
N	30%

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