Version:
December 01, 2022

DEMINT

Electronics Co., Ltd.

(TPSDS) Low DCR High Current Inductors

Web: www.direct-token.com

Email: rfq@direct-token.com

DeMint Electronics Co., Ltd.

China: 17P, Nanyuan Maple Leaf Bldg., Nanshan Ave.,
Nanshan Dist., Shenzhen, Guangdong, China. 518054
Tel: +86 755 26055363

Taiwan: No.137, Sec. 1, Zhongxing Rd., Wugu District,
New Taipei City, Taiwan. 248012
Tel: +886 2981 0109 Fax: +886 2988 7487

Product Introduction

DeMint (TPSDS) SMD Power Inductor packs low DCR, low profile, high current all in one.

Inductor Selection Overview :

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

Features :

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

Applications :

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

DeMint'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.

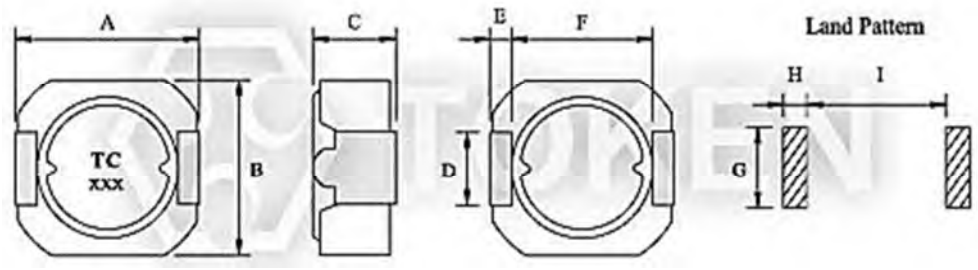
The (TPSDS) inductor serves as a space-saving, high-performing, and power-saving solution for low-profile, high-current power supplies and point of distributed power systems; DC-to-DC converter; voltage regulator module (VRM) and load (POL) converters applications in end products including next-generation mobile devices; personal multimedia devices, automotive systems, notebooks, desktop computers, servers, graphic cards, field-programmable gate arrays (FPGAs), portable gaming devices, and personal navigation systems.

DeMint 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. Custom parts are available on request. Please contact our sales or link to DeMint official website "SMD Power Inductors" for more information.

Dimensions

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



SMD High Current Inductor (TPSDS) Dimensions

- Note: Design as Customer's Requested Specifications.

TPSDS0620

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.**

TPSDS0625

Electrical Characteristics (TPSDS0625)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) 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.**

TPSDS0630

Electrical Characteristics (TPSDS0630)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) 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.**

TPSDS0635

Electrical Characteristics (TPSDS0635)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) 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.**

TPSDS104

Electrical Characteristics (TPSDS104)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) 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.**

TPSDS106

Electrical Characteristics (TPSDS106)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) 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.**

TPSDS126

Electrical Characteristics (TPSDS126)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) 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.**

Order Codes

Order Codes (TPSDS)

TPSDS0620	-	1R1	N

Part Number		Inductance		Tolerance	
TPSDS0620	TPSDS104	1R1	1.10µH	M	20%
TPSDS0630	TPSDS106	120	12.00µH	N	30%
TPSDS0625	TPSDS126	121	120.00µH		
TPSDS0635					

General Information

How to Quickly Search Inductor for all of the Characteristics?

Quickly Search Inductor Finder

Searching and comparing data sheets of inductor manufacturers can be time consuming. DeMint's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

DeMint Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. DeMint provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

Find Inductor Solutions Faster

Find Your Inductor - rfq@direct-token.com

Only timely and accurate information can help manage the changing needs of your customers. The DeMint Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - rfq@direct-token.com

Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At DeMint, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.

Ask Us Today