

Version:  
January 13, 2017



# TOKEN

## (TPSRB)

# Surface Mount Power Inductor

**Token Electronics Industry Co., Ltd.**

**Taiwan:** No.137, Sec. 1, Zhongxing Rd., Wugu District,  
New Taipei City, Taiwan, R.O.C. 24872  
Tel: +886 2981 0109 Fax: +886 2988 7487

**China:** 12F, Zhong Xing Industry Bld., Chuang Ye Road,  
Nan Shan District, Shen Zhen City,  
Guang Dong, China 518054  
Tel: +86 755 26055363; Fax: +86 755 26055365

[Web: www.token.com.tw](http://www.token.com.tw)

[Email: rfq@token.com.tw](mailto:rfq@token.com.tw)



**▶ Product Introduction****Token SMD Shielded Power Wire wound Inductor Packs  
More Power In Less Board Space.****Features :**

- Magnetically shielded construction.
- Compact and thin.
- Put the electrode with ferrite core directly, a small surface area allow a high mounting density.

**Applications :**

- VTR, OA equipment, LCD television set, Notebook.
- Portable communication equipments, DC-DC converters.

The TPSRB series of wire wound, surface-mount inductor from Token Electronics is designed for general purpose inductor to eliminate EMI in power lines for telecommunications, test & measurement equipment, networking, portable electronic equipment, PCs, appliances, and other electronic devices.

Developed to increase DC to DC converter efficiency through low DC resistance, the compact inductors save valuable board space, measuring only 5.90 mm × 6.50 mm × 3.50 mm for TPSR63B, 7.35 mm × 8.15 mm × 4.90 mm for TPSR74B, 9.40 mm × 10.40 mm × 5.50 mm for TPSR105B.



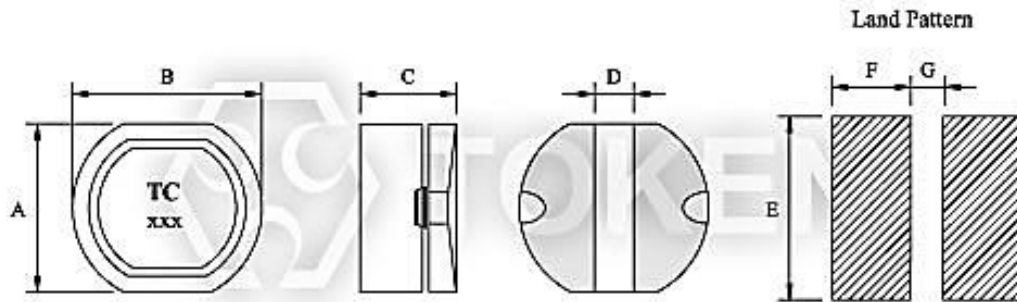
The inductors are magnetically shielded to prevent interference and operate in a temperature range of -40°C to +85°C. Token Electronics offers a variety of coils and inductors, including choke coils with low DC resistance for power supply circuits. Customers can select the optimum characteristics by choosing from monolithic or wire wound construction and a wide range of inductance values and tolerances with some types offering magnetic shielding.

Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements, contact us with your specific needs. For more information, please link to Token official website "[SMD Power Inductors](http://www.token.com.tw)".

## ► Dimensions & Configurations

### Dimensions & Configurations (TPSRB)

Type	A(max)	B(max)	C(max)	D(Ref.)	E	F	G
TPSR63B	5.90	6.50	3.50	1.45	5.50	2.25	1.70
TPSR74B	7.35	8.15	4.90	2.10	7.50	4.00	2.00
TPSR105B	9.40	10.40	5.50	2.90	9.50	5.00	2.50



Surface Mount (TPSRB) Dimensions (Unit: mm)

- Note: Design as Customer's Requested Specifications.

## ▶ TPSR63B

### Electrical Characteristics (TPSR63B)

Part Number	Inductance ( $\mu\text{H}$ )	Test Freq. (MHz)	DCR ( $\Omega$ ) (max)	IDC (A) (max)
TPSR63B - 100M	10.00	2.52	0.140	1.00
TPSR63B - 120M	12.00	2.52	0.160	0.94
TPSR63B - 150M	15.00	2.52	0.180	0.86
TPSR63B - 180M	18.00	2.52	0.250	0.78
TPSR63B - 220M	22.00	2.52	0.320	0.76
TPSR63B - 270M	27.00	2.52	0.360	0.64
TPSR63B - 330M	33.00	2.52	0.410	0.61
TPSR63B - 390M	39.00	2.52	0.470	0.53
TPSR63B - 470M	47.00	2.52	0.510	0.50
TPSR63B - 560M	56.00	2.52	0.720	0.46
TPSR63B - 680M	68.00	2.52	0.820	0.42

## ▶ TPSR74B

### Electrical Characteristics (TPSR74B)

Part Number	Inductance ( $\mu\text{H}$ )	Test Freq. (MHz)	DCR ( $\Omega$ ) (max)	IDC (A) (max)
TPSR74B - 100M	10.00	2.52 M	0.070	1.65
TPSR74B - 120M	12.00	2.52 M	0.070	1.57
TPSR74B - 150M	15.00	2.52 M	0.080	1.39
TPSR74B - 180M	18.00	2.52 M	0.100	1.29
TPSR74B - 220M	22.00	2.52 M	0.130	1.12
TPSR74B - 270M	27.00	2.52 M	0.160	1.06
TPSR74B - 330M	33.00	2.52 M	0.180	0.97
TPSR74B - 390M	39.00	2.52 M	0.180	0.91
TPSR74B - 470M	47.00	2.52 M	0.270	0.80
TPSR74B - 560M	56.00	2.52 M	0.290	0.76
TPSR74B - 680M	68.00	2.52 M	0.330	0.68
TPSR74B - 820M	82.00	2.52 M	0.430	0.62
TPSR74B - 101M	100.00	1 K	0.490	0.55
TPSR74B - 121M	120.00	1 K	0.680	0.49
TPSR74B - 151M	150.00	1 K	0.940	0.44
TPSR74B - 181M	180.00	1 K	1.000	0.40
TPSR74B - 221M	220.00	1 K	1.180	0.36
TPSR74B - 271M	270.00	1 K	1.300	0.33

## ▶ TPSR105B

### Electrical Characteristics (TPSR105B)

Part Number	Inductance (μH)	Test Freq. (MHz)	DCR (Ω) (max)	IDC (A) (max)
TPSR105B - 100M	10.00	2.52 M	0.060	2.06
TPSR105B - 120M	12.00	2.52 M	0.070	1.94
TPSR105B - 150M	15.00	2.52 M	0.070	1.72
TPSR105B - 180M	18.00	2.52 M	0.080	1.58
TPSR105B - 220M	22.00	2.52 M	0.080	1.42
TPSR105B - 270M	27.00	2.52 M	0.100	1.32
TPSR105B - 330M	33.00	2.52 M	0.110	1.16
TPSR105B - 390M	39.00	2.52 M	0.120	1.10
TPSR105B - 470M	47.00	2.52 M	0.140	1.00
TPSR105B - 560M	56.00	2.52 M	0.190	0.93
TPSR105B - 680M	68.00	2.52 M	0.210	0.85
TPSR105B - 820M	82.00	2.52 M	0.280	0.79
TPSR105B - 101M	100.00	1 K	0.340	0.72
TPSR105B - 121M	120.00	1 K	0.370	0.63
TPSR105B - 151M	150.00	1 K	0.510	0.55
TPSR105B - 181M	180.00	1 K	0.570	0.50
TPSR105B - 221M	220.00	1 K	0.780	0.47
TPSR105B - 271M	270.00	1 K	0.870	0.41
TPSR105B - 331M	330.00	1 K	1.200	0.37
TPSR105B - 391M	390.00	1 K	1.340	0.35
TPSR105B - 471M	470.00	1 K	1.500	0.33

- Note: TPSR74B-101 ~ 271 Tests Freq.: 1 KHz / 0.25V.  
 TPSR105B-101 ~ 471 Tests Freq.: 1 KHz / 0.25V.  
 Operating Temp. : -40°C ~ +85°C.  
 Inductance drop = 10% typ. at IDC.

## Order Codes

### Order Codes (TPSRB)

TPSR63B	-	100		M	
Part Number		Inductance		Tolerance	
TPSR63B		100	10.00μH	K	10%
TPSR74B		101	100.00μH	L	15%
TPSR105B				M	20%
				N	30%

## ► 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. Token'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

Token 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. Token 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 - wt.moc.nekot@qfr

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

#### Find Your Solution - wt.moc.nekot@qfr

Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, 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**