

Version:
December 1, 2022



(TCDA)
High Current
Power Inductors

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▶ Product Introduction

Technology of Diagonal Through Hole High Current Power Inductors (TCDA) Design.

Features :

- Low DCR.
- High Frequency (up to 1MHz).
- Low Profile: 7.5mm ~ 10.0mm
- For Large Current Use: 12 ~ 45 amp.
- Diagonal Through Hole Power Inductor.

Applications :

- Graphic Card/ VGA Module.
- Inductor for general purpose use.
- Laptop Computer / Notebook Computer.
- DC/DC converter or VRM applications.
- Thin type on-board power supply module for exchanger.

Token's TCDA Large Current Series power inductors feature with high current, low DC resistance, high frequency, easy heat dissipation, and high reliability advantages.

Token utilizes the latest technology of diagonal through hole power inductor design enabling the most cost-effective propose in manufacturing TCDA Products.


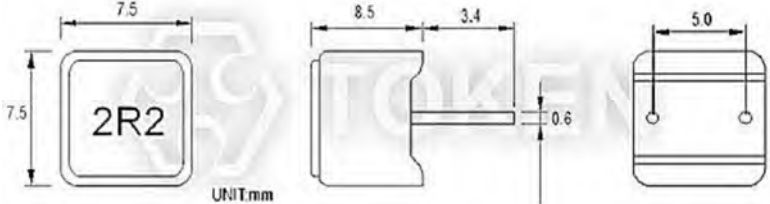

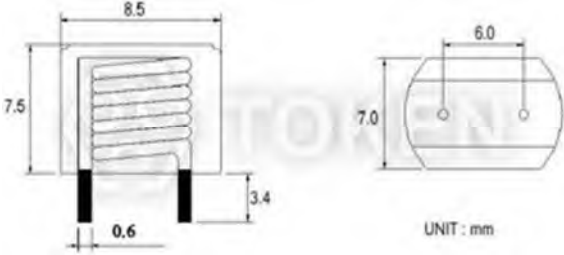

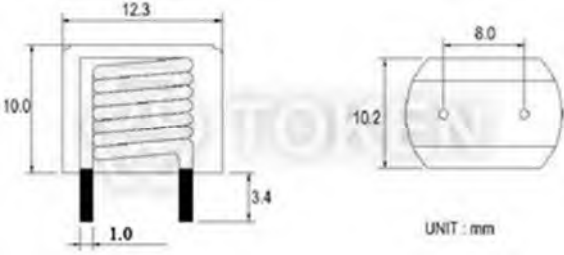

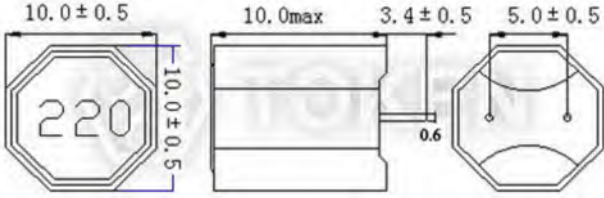

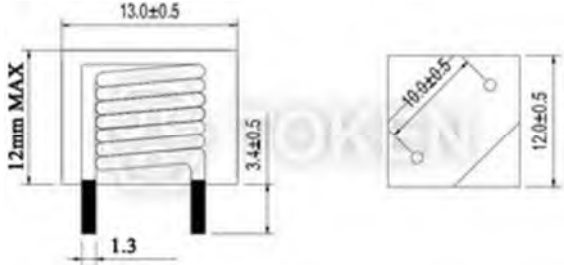
Token will also produce devices outside these specifications to meet customer requirements, with comprehensive application engineering and design support available for customers worldwide.

The TCDA series is lead-free and RoHS compliant. Detailed specifications, both mechanical and electrical. Please contact our sales or link to Token official website "[Through Hole Inductors](http://www.token.com.tw)" for more information.



► Configurations & Dimensions

Configurations & Dimensions (Unit: mm) (TCDA0707/0808/1012/1010A/1312)

<p>TCDA0707</p>		 <p style="text-align: center;">UNIT:mm</p>
<p>TCDA0808</p>		 <p style="text-align: center;">UNIT : mm</p>
<p>TCDA1210</p>		 <p style="text-align: center;">UNIT : mm</p>
<p>TCDA1010A</p>		
<p>TCDA1312</p>		

▶ **TCDA0707**

Electrical Characteristics (TCDA0707)

PART NO	L (μH)	DCR Max. (mΩ)	IDC Max. (A)	TEST FREQ. (Hz)
TCDA0707-R56MB	0.56	2.50	32	100k/0.1v
TCDA0707-1R0MB	1.00	5.6	21	100k/0.1v
TCDA0707-1R5MB	1.5	7.5	18	100k/0.1v
TCDA0707-2R2MB	2.2	10.00	16	100k/0.1v
TCDA0707-2R8MB	2.8	11.8	15	100k/0.1v
TCDA0707-3R3MB	3.3	13.6	14	100k/0.1v
TCDA0707-4R7MB	4.7	17.00	12	100k/0.1v

Note:

- Ims: The value of current indicates that the temperature of the coil is increase 40°C (trpcial) ◦
- Isat: The valve of current indicates that inductance drops 20% (trpcial)from its initial value without DC current.
- Test condition: Ta = 25°C ◦
- Test condition: 100 KHZ 0.1V ◦
- In Bulk packing.
- Special inquiries besides the above common used types can be met on your require ment.
- TEMPERATURE RATING: Operating -55°C to ~ 125°C ◦

▶ **TCDA0808**

Electrical Characteristics (TCDA0808)

PART NO	L (μH)	DCR Max. (mΩ)	IDC Max. (A)	TEST FREQ. (Hz)
TCDA0808-R56MB	0.56	2.50	32	100k/0.1v
TCDA0808-1R0MB	1.00	5.6	21	100k/0.1v
TCDA0808-1R5MB	1.5	7.5	18	100k/0.1v
TCDA0808-2R2MB	2.2	10.00	16	100k/0.1v
TCDA0808-2R8MB	2.8	11.8	15	100k/0.1v
TCDA0808-3R3MB	3.3	13.6	14	100k/0.1v
TCDA0808-4R7MB	4.7	17.00	12	100k/0.1v

Note:

- Ims: The value of current indicates that the temperature of the coil is increase 40°C (trpcial) ◦
- Isat: The valve of current indicates that inductance drops 20% (trpcial)from its initial value without DC current.
- Test condition: Ta = 25°C ◦
- Test condition: 100 KHZ 0.1V ◦
- In Bulk packing.
- Special inquiries besides the above common used types can be met on your require ment.
- TEMPERATURE RATING: Operating -55°C to ~ 125°C ◦



▶ TCDA1010A

Electrical Characteristics (TCDA1010A)

PART NO	L (μH)	DCR Max. (mΩ)	IDC Max. (A)	TEST FREQ. (Hz)
TCDA1010A-100MB	10	16.00	Isat 9.0A / Irms 5.0A	100k/0.1v
TCDA1010A-150MB	15	28.00	Isat 7.0A / Irms 4.5A	100k/0.1v
TCDA1010A-220MB	22	32.00	Isat 6.0A / Irms 4.0A	100k/0.1v
TCDA1010A-330MB	33	52.00	Isat 5.0A / Irms 3.5A	100k/0.1v
TCDA1010A-470MB	47	80.00	Isat 3.0A / Irms 2.0A	100k/0.1v

Note:

- **Ims:** The value of current indicates that the temperature of the coil is increase 40°C (trpcial) .
- **Isat:** The value of current indicates that inductance drops 20% (trpcial)from its initial value without DC current.
- **Test condition:** Ta = 25°C .
- **Test condition:** 100 KHZ 0.1V .
- **In Bulk packing.**
- **Special inquiries** besides the above common used types can be met on your require ment.
- **TEMPERATURE RATING:** Operating -55°C to ~ 125°C .

▶ TCDA1210

Electrical Characteristics (TCDA1210)

PART NO	L (μH)	DCR Max. (mΩ)	IDC Max. (A)	TEST FREQ. (Hz)
TCDA1210-R22MB	0.22	0.60	56	100k/0.1v
TCDA1210-R33MB	0.33	0.80	48	100k/0.1v
TCDA1210-R39M-B	0.39	0.80	48	100k/0.1v
TCDA1210-R47M-B	0.47	1.00	40	100k/0.1v
TCDA1210-R56M-B	0.56	1.00	40	100k/0.1v
TCDA1210-R68M-B	0.68	1.00	40	100k/0.1v
TCDA1210-R80M-B	0.80	1.25	36	100k/0.1v
TCDA1210-1R0M-B	1.00	2.00	32	100k/0.1v
TCDA1210-1R5M-B	1.50	3.50	30	100k/0.1v
TCDA1210-2R2M-B	2.20	5.00	24	100k/0.1v
TCDA1210-2R8M-B	2.80	6.40	20	100k/0.1v
TCDA1210-3R3M-B	3.30	7.70	16	100k/0.1v
TCDA1210-4R7M-B	4.70	10.00	15	100k/0.1v

Note:

- **Ims:** The value of current indicates that the temperature of the coil is increase 40°C (trpcial) .
- **Isat:** The value of current indicates that inductance drops 20% (trpcial)from its initial value without DC current.
- **Test condition:** Ta = 25°C .
- **Test condition:** 100 KHZ 0.1V .
- **In Bulk packing.**
- **Special inquiries** besides the above common used types can be met on your require ment.
- **TEMPERATURE RATING:** Operating -55°C to ~ 125°C .



▶ **TCDA1312**

Electrical Characteristics (TCDA1312)

PART NO	L (μH)	DCR Max. (mΩ)	IDC Max. (A)	TEST FREQ. (Hz)
TCDA1312-R33MB	0.33	0.6	40	100k/0.1v
TCDA1312-R39MB	0.39	0.65	39	100k/0.1v
TCDA1312-R47MB	0.47	0.68	38	100k/0.1v
TCDA1312-R56MB	0.56	0.68	38	100k/0.1v
TCDA1312-R68MB	0.68	0.85	35	100k/0.1v
TCDA1312-R80MB	0.80	0.90	33	100k/0.1v
TCDA1312-1R0MB	1.00	1.25	28	100k/0.1v
TCDA1312-1R5MB	1.5	1.65	25	100k/0.1v

Note:

- I_{ms}: The value of current indicates that the temperature of the coil is increase 40°C (trpcial) .
- I_{sat}: The value of current indicates that inductance drops 20% (trpcial)from its initial value without DC current.
- Test condition: Ta = 25°C .
- Test condition: 100 KHZ 0.1V .
- In Bulk packing.
- Special inquiries besides the above common used types can be met on your require ment.
- TEMPERATURE RATING: Operating -55°C to ~ 125°C .

▶ **Order Codes**

Order Codes (TCDA)

TCDA	1312		-	R22		M	
Part Number	Size			Inductance		Tolerance	
TCDA	0707	7.5×7.5mm		R22	0.22μH	J	±5%
	0808	8.5×7.0mm		1R0	1.00μH	K	±10%
	1210	12.3×10.2mm				L	±15%
	1010A	10.0×10.0mm				M	±20%
	1312	13.0×12.0mm				P	±25%
						N	±30%



► General Information

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 -rfq@token.com.tw

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 -rfq@token.com.tw

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

