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# TOKEN

## (TCDY)

# High Current Integrated Inductor

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## ▶ Product Introduction

### Technology of Diagonal Through Hole High Current Power Inductors Design.

#### Features :

- Ultra low cost.
- Shielded construction.
- High current rating up to DC 40 Amp.
- High frequency range up to 1.0MHz.
- Very low DC resistance.
- All lead-free.(RoHS).

#### Applications :

- Motherboards for laptop and desktop computers.
- DC/DC converter in distributed power systems or VRM Applications. Inductor for general purpose use.

Today's electronics have grown to be more and more power hungry and therefore are operating at greater switching frequencies, depriving for speed and shrinking in dimensions as nothing you've seen prior. Inductors really are a fundamental aspect in the current regulator topology, and just about any circuit that regulates power in automobiles, industrial and electronic devices, and DC-DC converters requires an inductor. Conventional inductor technologies have been falling behind in meeting our prime performance need for these advanced electronics. Consequently, Token is promoting several inductor models with rated DC current as much as 40 A to satisfy the difficulties from the market.




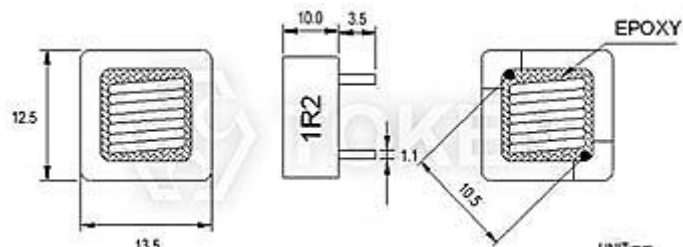

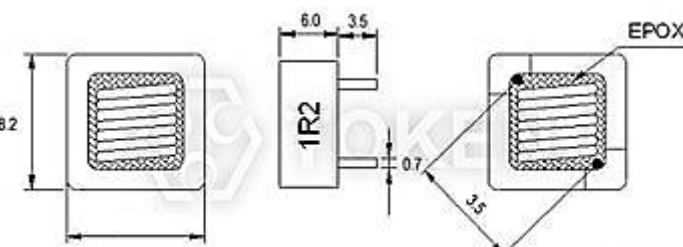

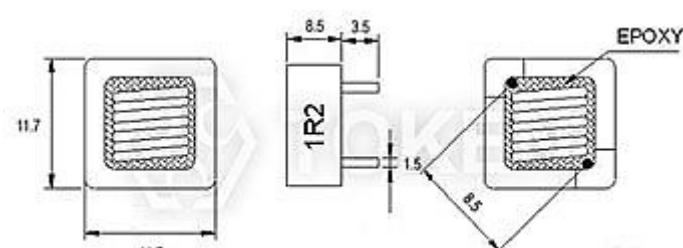
The Nickel Core Integrated Inductor (TCDY) measure high current rating up to DC 40 Amp., frequency high up to 1.0MHz with low DC resistance. Three compact sizes are available, 8.2mm x 8.2mm, 10.2mm x 10.2mm, and 12.5mm x 12.5mm. Making them ideally for today's DC/DC converter in distributed power systems or VRM, and motherboards for laptop and desktop computers applications.

The (TCDY) inductors are RoHS compliant and meet standard requirements. Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements. 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) (TCDY0806/1108/1310)

<p>TCDY0806</p>		 <p style="text-align: right;">UNIT:mm</p>
<p>TCDY1108</p>		 <p style="text-align: right;">UNIT:mm</p>
<p>TCDY1310</p>		 <p style="text-align: right;">UNIT:mm</p>

▶ **TCDY0806**

**Electrical Characteristics (TCDY0806)**

Part No	L (μH)	DCR Max. (mΩ)	IDC Max. (A)	Test Freq. (Hz)
TCDY0806-R47M	0.47	1.9	22.0	1.0/100k
TCDY0806-R60M	0.60	1.9	21.0	1.0/100k
TCDY0806-R80M	0.80	2.9	17.0	1.0/100k
TCDY0806-1R0M	1.00	4.3	14.0	1.0/100k

Note:

- Inductance tested at 100KHz , 0.1V.
- Inductance drop = 10% typ. at rated isat.
- Δ T = 40 °C rise typ. at irms.
- Operating temperature range -40 °C to +125 °C.
- Electrical specifications at +25 °C.

▶ **TCDY1108**

**Electrical Characteristics (TCDY1108)**

Part No	L (μH)	DCR Max. (mΩ)	IDC Max. (A)	Test Freq. (Hz)
TCDY1108-R47MB	0.47	0.8	38.0	100k/0.1v
TCDY1108-R60MB	0.60	0.8	38.0	100k/0.1v
TCDY1108-R80MB	0.80	1.3	31.0	100k/0.1v
TCDY1108-1R0MB	1.00	1.3	31.0	100k/0.1v
TCDY1108-1R5MB	1.50	1.8	26.0	100k/0.1v
TCDY1108-2R0MB	2.00	3.3	20.0	100k/0.1v
TCDY1108-3R3MB	3.30	6.3	14.0	100k/0.1v

Note:

- Inductance tested at 100KHz , 0.1V.
- Inductance drop = 10% typ. at rated isat.
- Δ T = 40 °C rise typ. at irms.
- Operating temperature range -40 °C to +125 °C.
- Electrical specifications at +25 °C.



▶ TCDY1310

Electrical Characteristics (TCDY1310)

Part No	L (μH)	DCR Max. (mΩ)	IDC Max. (A)	Test Freq. (Hz)
TCDY1310-R47MB	0.47	0.75	40	100k/0.1v
TCDY1310-R60MB	0.60	0.75	40	100k/0.1v
TCDY1310-R80MB	0.80	0.75	39	100k/0.1v
TCDY1310-1R0MB	1.0	1.15	32	100k/0.1v
TCDY1310-1R5MB	1.5	1.85	26	100k/0.1v
TCDY1310-2R0MB	2.0	3.0	21	100k/0.1v
TCDY1310-2R4MB	2.4	3.0	20	100k/0.1v
TCDY1310-3R3MB	3.3	4.3	17	100k/0.1v

Note:

- Inductance tested at 100KHz , 0.1V.
- Inductance drop = 10% typ. at rated isat.
- ΔT = 40 °C rise typ. at irms.
- Operating temperature range -40 °C to +125 °C.
- Electrical specifications at +25 °C.

▶ Order Codes

Order Codes (TCDY)

TCDY	1310	-	R22	M		
Part Number	Size		Inductance		Tolerance	
TCDY	0806	8.2×8.2mm	R22	0.22μH	J	±5%
	1108	11.7×11.7mm	1R0	1.00μH	K	±10%
	1310	12.5×13.5mm			L	±15%
					M	±20%
					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** - 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**

