

WEBENCH® Transformer Report

Design : 56 UCC28C44QDRQ1
UCC28C44QDRQ1 230V-230V to 5.00V @ 2A

#	Name	Value
1.	Core Part Number	B66413G0000X149
2.	Core Manufacturer	TDK
3.	Coil Former Part Number	B66414W1008D001
4.	Coil Former Manufacturer	TDK

Transformer Electrical Diagram

Primary

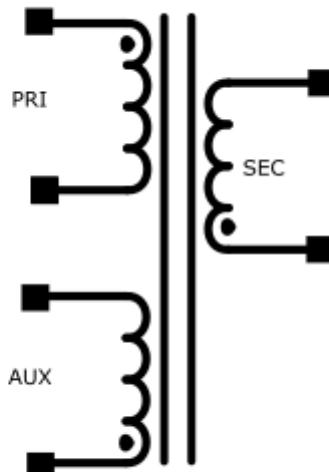
Turns	80.0
AWG	34.0
Layers	4.0
Strands	2.0
Insulation Type	Heavy Insulated Magnet Wire

Auxiliary

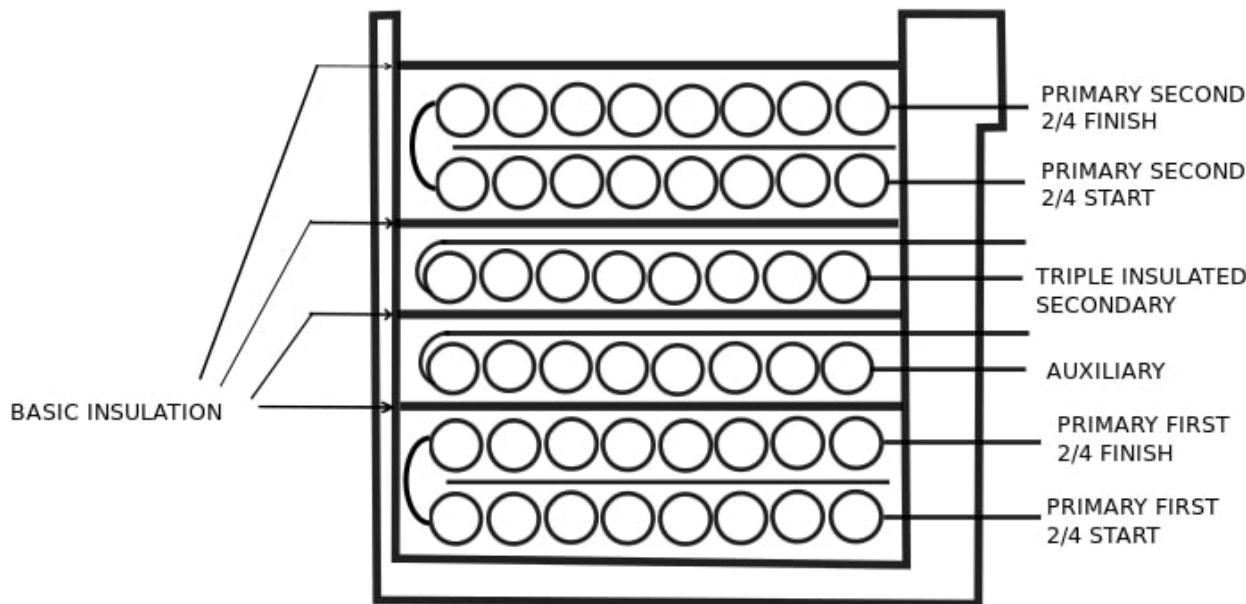
Turns	11.0
AWG	28.0
Layers	1.0
Strands	2.0
Insulation Type	Heavy Insulated Magnet Wire

Secondary

Turns	4.0
AWG	33.0
Layers	1.0
Strands	4.0
Insulation Type	Triple Insulated



Transformer Construction Diagram



Winding Instruction

Winding	AWG	Turns	Winding Orientation
Primary First 2/4.0	34.0	40	Clockwise
Auxiliary	28.0	11.0	Counter Clockwise
Triple Insulated Secondary	33.0	4.0	Counter Clockwise
Primary Second 2/4.0	34.0	40	Clockwise

Transformer Parameters

#	Name	Value
1.	Lpri	0.00115H
2.	Inductance Factor(AI)	181.0nH
3.	Npri	80.0
4.	Nsec	4.0
5.	Naux	11.0
6.	Core Type	EFD15/8/5
7.	Core Material	N49
8.	Bmax	0.20T
9.	Switching Frequency	494.25kHz
10.	DMax	0.36
11.	Ipk(Primary)	0.21A
12.	Irms(Primary)	0.08A
13.	Ipk(Secondary)	4.11A
14.	Irms(Secondary)	2.06A

Design Assistance

1. Feature Highlights: This device provides the features that are necessary to implement off-line or dc-to-dc fixed-frequency current-mode control schemes, with a minimum number of external components.
2. The UCC28C44-Q1 is qualified for Automotive applications. All passives and other components selected in this design may not be qualified for Automotive applications. The user is required to verify that all components in the design meet the qualification and safety requirements for their specific application
3. [UCC28C44-Q1 Product Folder](http://www.ti.com/product/UCC28C44%2DQ1) : <http://www.ti.com/product/UCC28C44%2DQ1> : contains the data sheet and other resources.

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