WEBENCH ® Transformer Report

Design : 38 LM5023MMX-2/NOPB
LM5023MMX-2/NOPB 85V-484V to 15.00V @ 2.5A

#	Name	Value
1.	Core Part Number	B65847A0000R087
2.	Core Manufacturer	TDK
3.	Coil Former Part Number	B65848D1010D001
4.	Coil Former Manufacturer	TDK

Transformer Electrical Diagram

Primary

Turns	68.0
AWG	26.0
Layers	3.0
Strands	1.0
Insulation Type	Heavy Insulated Magnet Wire

Secondary

Turns	9.0
AWG	28.0
Layers	1.0
Strands	2.0
Insulation Type	Triple Insulated

Auxiliary

Turns	7.0
AWG	28.0
Layers	1.0
Strands	4.0
Insulation Type	Heavy Insulated Magnet Wire

Transformer Construction Diagram

Winding Instruction

Winding	AWG	Turns	Winding Orientation
Primary First 2/3.0	26.0	46	Clockwise
Auxiliary	28.0	7.0	Counter Clockwise
Triple Insulated Secondary	28.0	9.0	Counter Clockwise
Primary Second 1/3.0	26.0	22	Clockwise

Transformer Parameters

#	Name	Value
1.	Lpri	8.17E-4H
2.	Inductance Factor(Al)	177.0nH
3.	Npri	68.0
4.	Nsec	9.0
5.	Naux	7.0

Copyright © 2021, Texas Instruments Incorporated   1   ti.com/webench

WEBENCH® Design Report   LM5023MMX-2/NOPB : LM5023MMX-2/
NOPB 85V-484V to 15.00V @ 2.5A   October 28, 2021 01:30:06 GMT-05:00

#	Name	Value
6.	Core Type	EP20
7.	Core Material	N87
8.	Bmax	0.23T
9.	Switching Frequency	45.00kHz
10.	DMax	0.45
11.	Ipk(Primary)	1.51A
12.	Irms(Primary)	0.58A
13.	Ipk(Secondary)	11.4A
14.	Irms(Secondary)	4.44A

Design Assistance

1. **LM5023** Product Folder : http://www.ti.com/product/LM5023 : contains the data sheet and other resources.

Copyright © 2021, Texas Instruments Incorporated　　　　2　　　　ti.com/webench

WEBENCH® Design Report　LM5023MMX-2/NOPB : LM5023MMX-2/
NOPB 85V-484V to 15.00V @ 2.5A　October 28, 2021 01:30:06 GMT-05:00