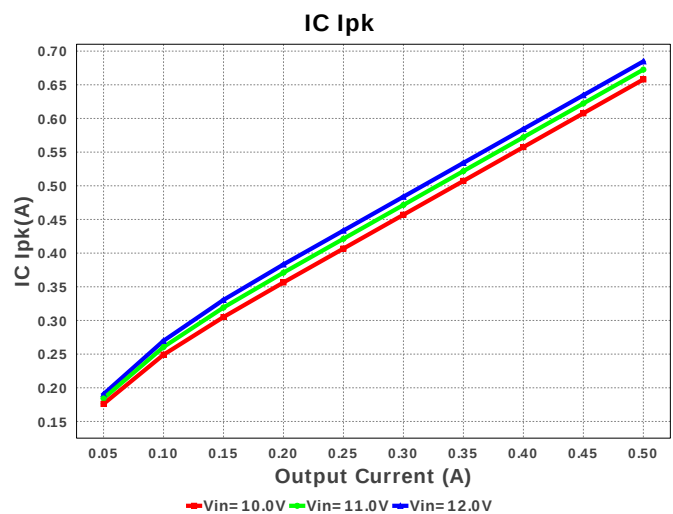
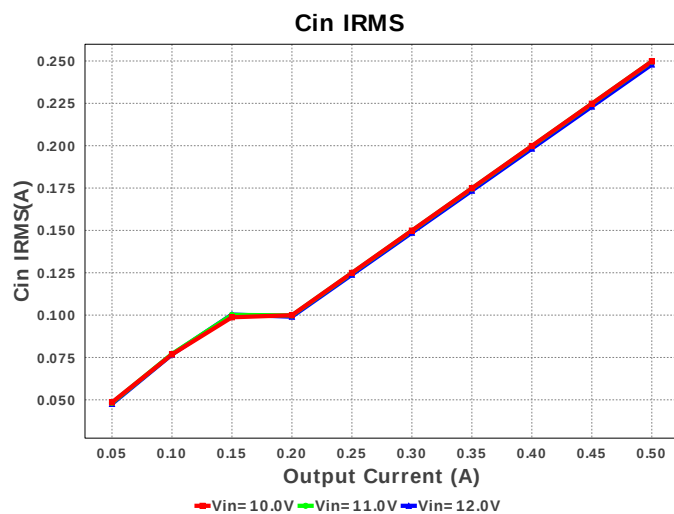
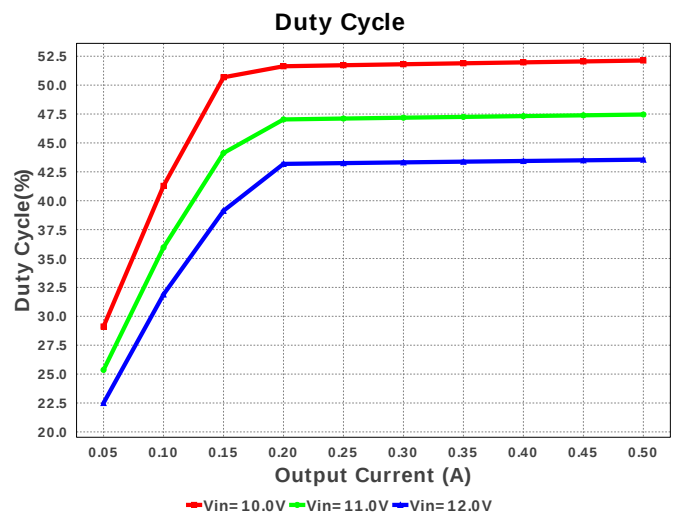
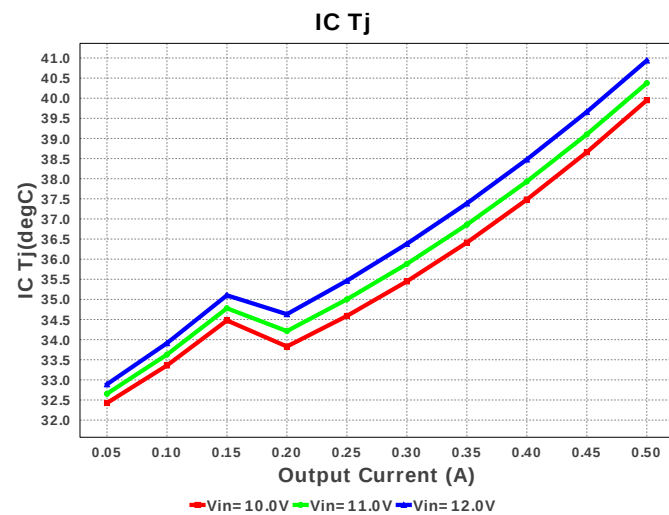
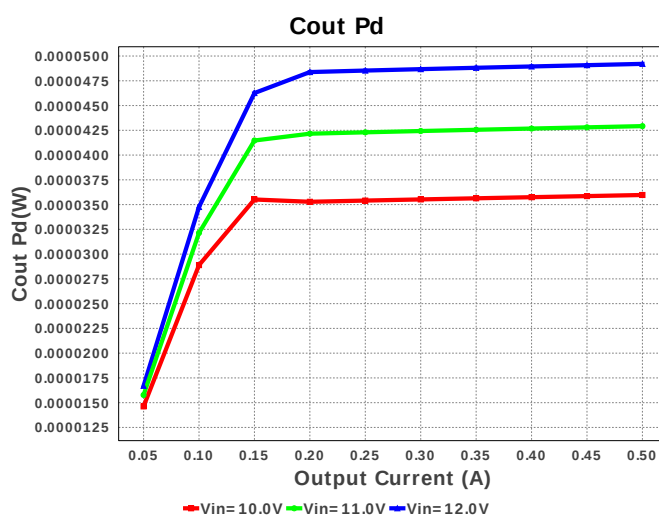
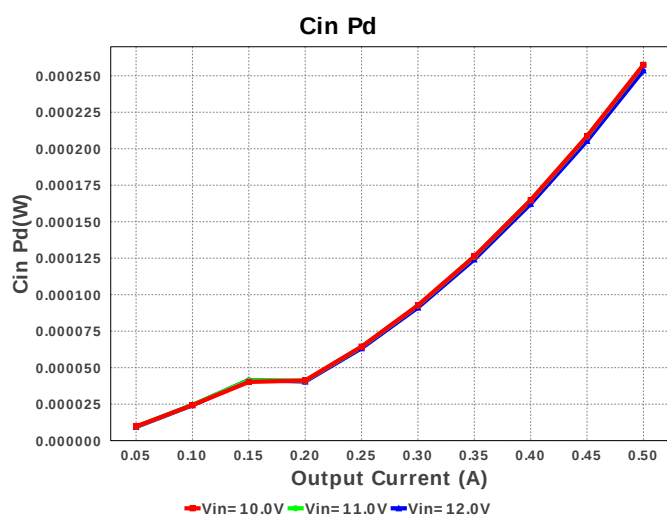
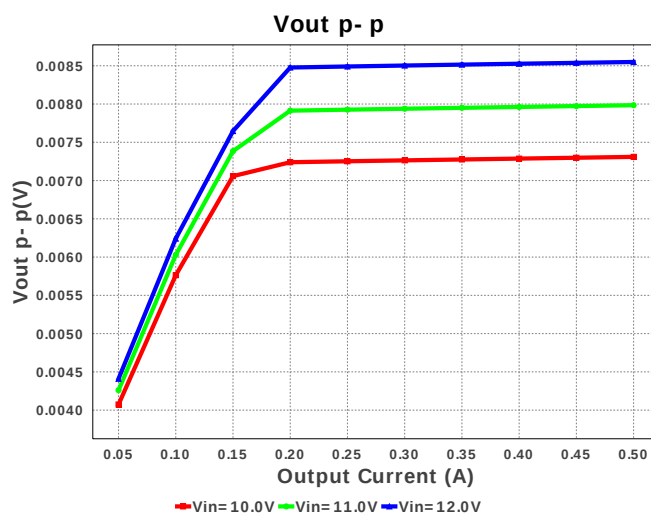
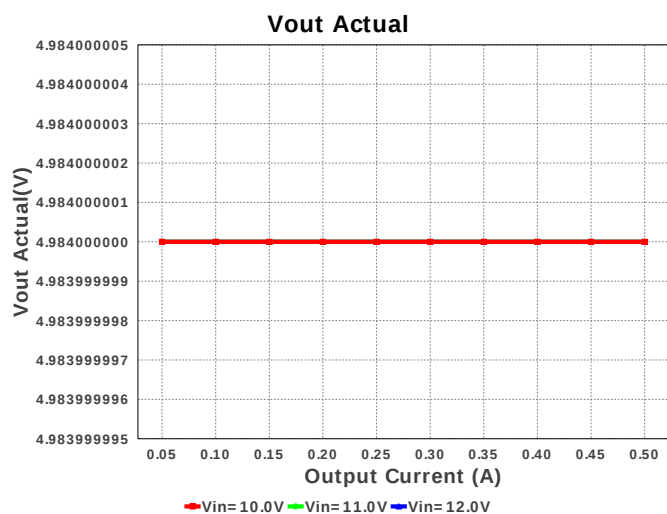
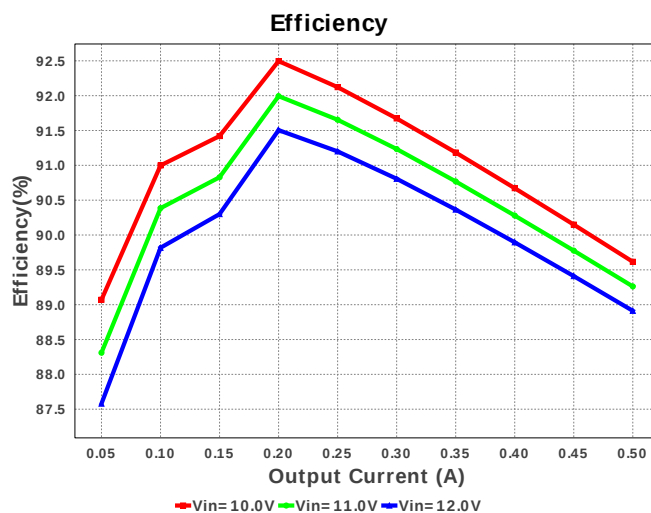
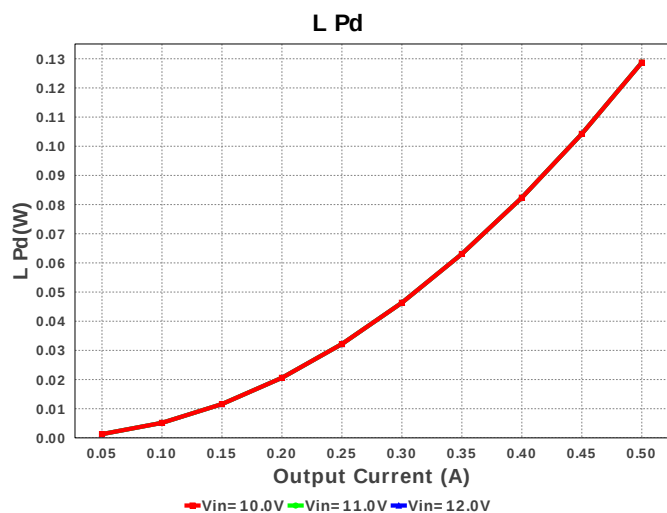


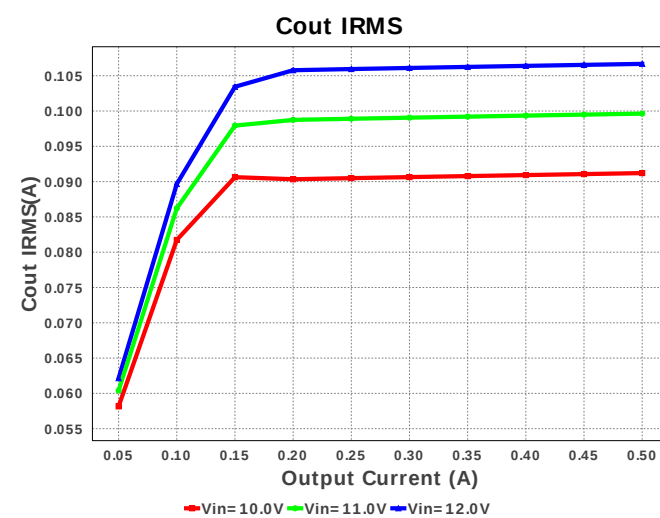
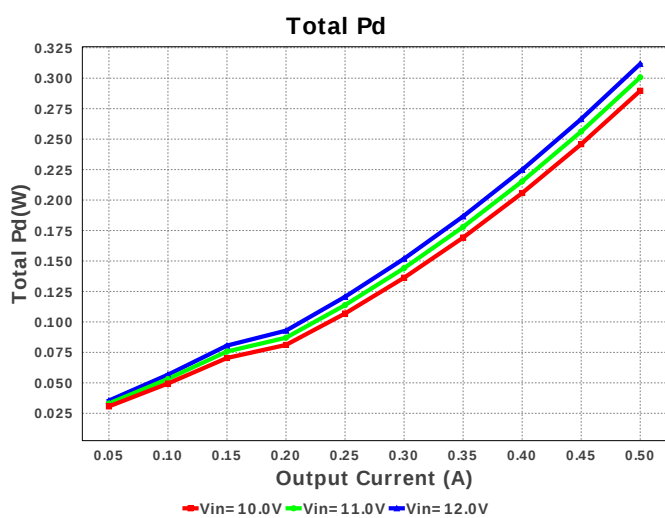
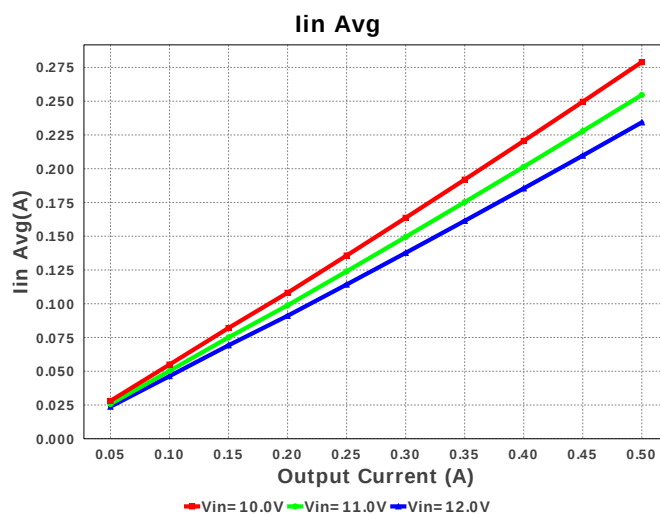
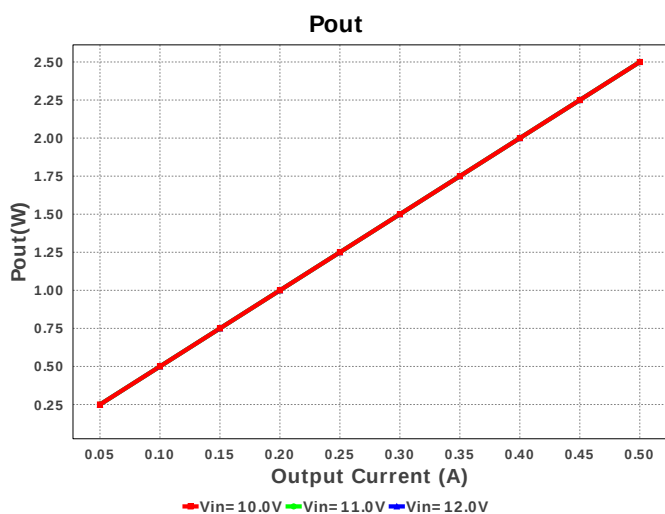
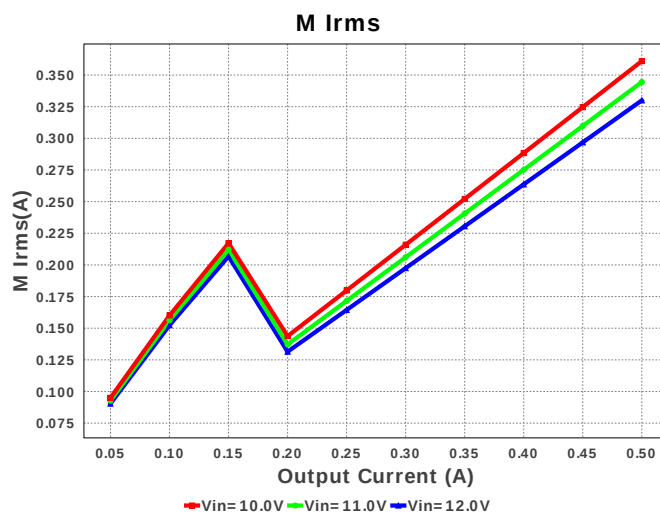
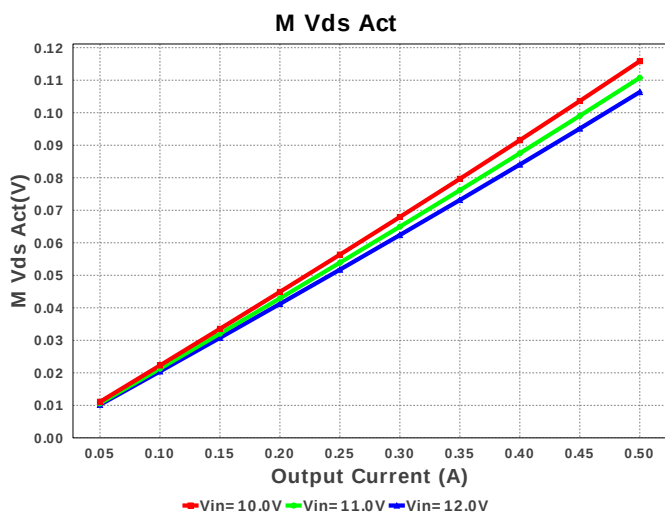


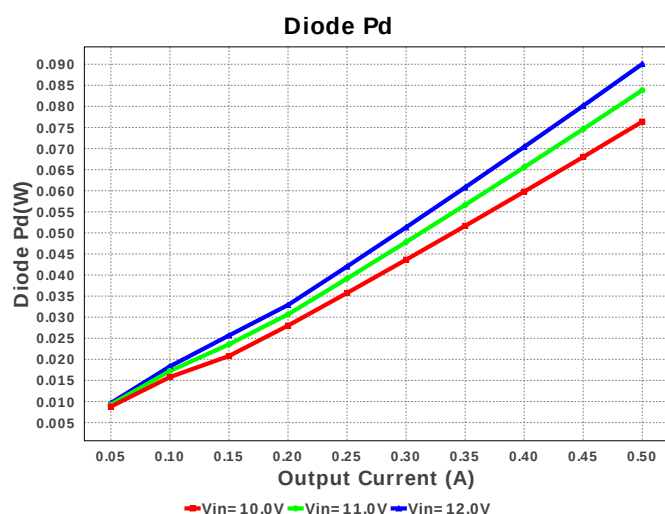
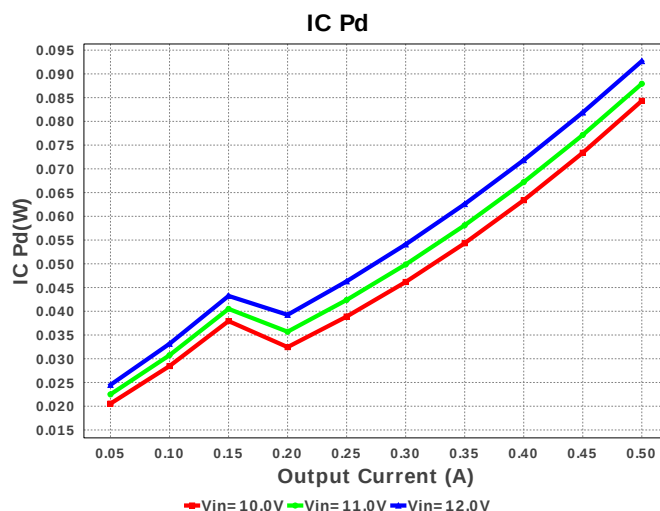
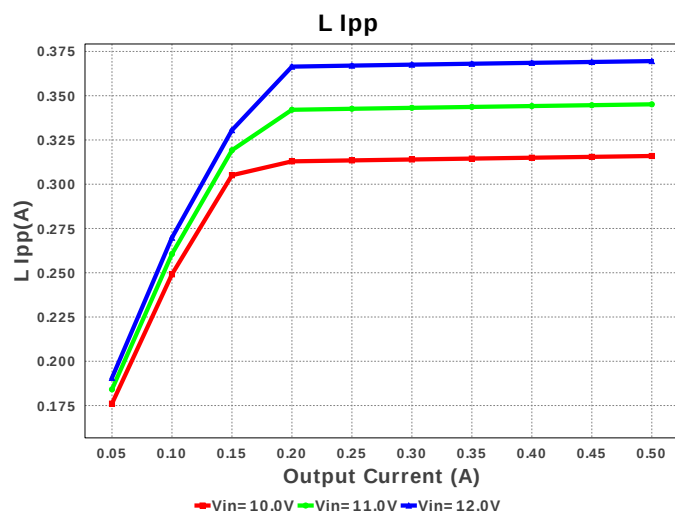
Device = LM2734YMK/NOPB
Topology = Buck
Created = 7/21/16 8:55:40 PM
BOM Cost = \$1.37
BOM Count = 10
Total Pd = 0.31W

#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
6.	L1	Coilcraft	ME3220-153KLB	L= 15.0 μ H DCR= 468.0 mOhm	1	\$0.23	 ME3220 16 mm ²
7.	Renale	Vishay-Dale	CRCW040210K0FKED Series= CRCW..e3	Res= 10.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3 mm ²
8.	Rfb1	Vishay-Dale	CRCW040210K0FKED Series= CRCW..e3	Res= 10.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3 mm ²
9.	Rfb2	Vishay-Dale	CRCW040252K3FKED Series= CRCW..e3	Res= 52.3 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3 mm ²
10.	U1	Texas Instruments	LM2734YMK/NOPB	Switcher	1	\$0.95	 MK06A 11 mm ²









Operating Values

#	Name	Value	Category	Description
1.	Cin IRMS	247.88 mA	Current	Input capacitor RMS ripple current
2.	Cout IRMS	106.553 mA	Current	Output capacitor RMS ripple current
3.	IC Ipk	684.555 mA	Current	Peak switch current in IC
4.	Iin Avg	234.06 mA	Current	Average input current
5.	L Ipp	369.11 mA	Current	Peak-to-peak inductor ripple current
6.	M1 Irms	329.781 mA	Current	Q lavg
7.	BOM Count	10	General	Total Design BOM count
8.	FootPrint	81.0 mm ²	General	Total Foot Print Area of BOM components
9.	Frequency	550.0 kHz	General	Switching frequency
10.	IC Tolerance	16.0 mV	General	IC Feedback Tolerance
11.	M Vds Act	106.291 mV	General	
12.	Pout	2.5 W	General	Total output power
13.	Total BOM	\$1.37	General	Total BOM Cost
14.	Vout Actual	4.984 V	Op_Point	Vout Actual calculated based on selected voltage divider resistors
15.	Duty Cycle	43.502 %	Op_point	Duty cycle
16.	Efficiency	89.01 %	Op_point	Steady state efficiency
17.	IC Tj	40.933 degC	Op_point	IC junction temperature
18.	ICThetaJA	118.0 degC/W	Op_point	IC junction-to-ambient thermal resistance
19.	IOUT_OP	500.0 mA	Op_point	Iout operating point
20.	VIN_OP	12.0 V	Op_point	Vin operating point
21.	Vout p-p	8.539 mV	Op_point	Peak-to-peak output ripple voltage
22.	Cin Pd	253.581 μ W	Power	Input capacitor power dissipation
23.	Cout Pd	49.092 μ W	Power	Output capacitor power dissipation
24.	Diode Pd	87.011 mW	Power	Diode power dissipation
25.	IC Pd	92.653 mW	Power	IC power dissipation
26.	L Pd	128.7 mW	Power	Inductor power dissipation
27.	Total Pd	308.678 mW	Power	Total Power Dissipation
28.	Vout Tolerance	3.73 %		Vout Tolerance based on IC Tolerance (no load) and voltage divider resistors if applicable

Design Inputs

#	Name	Value	Description
1.	Iout	500.0 m	Maximum Output Current
2.	VinMax	12.0	Maximum input voltage
3.	VinMin	10.0	Minimum input voltage
4.	Vout	5.0	Output Voltage
5.	base_pn	LM2734Y	Base Product Number
6.	source	DC	Input Source Type
7.	Ta	30.0	Ambient temperature

Design Assistance

1. **LM2734Y** Product Folder : <http://www.ti.com/product/LM2734> : contains the data sheet and other resources.

Texas Instruments' WEBENCH simulation tools attempt to recreate the performance of a substantially equivalent physical implementation of the design. Simulations are created using Texas Instruments' published specifications as well as the published specifications of other device manufacturers. While Texas Instruments does update this information periodically, this information may not be current at the time the simulation is built. Texas Instruments does not warrant the accuracy or completeness of the specifications or any information contained therein. Texas Instruments does not warrant that any designs or recommended parts will meet the specifications you entered, will be suitable for your application or fit for any particular purpose, or will operate as shown in the simulation in a physical implementation. Texas Instruments does not warrant that the designs are production worthy.

You should completely validate and test your design implementation to confirm the system functionality for your application prior to production.

Use of Texas Instruments' WEBENCH simulation tools is subject to [Texas Instruments' Site Terms and Conditions of Use](#). Prototype boards based on WEBENCH created designs are provided AS IS without warranty of any kind for evaluation and testing purposes and are subject to the terms of the [Evaluation License Agreement](#).