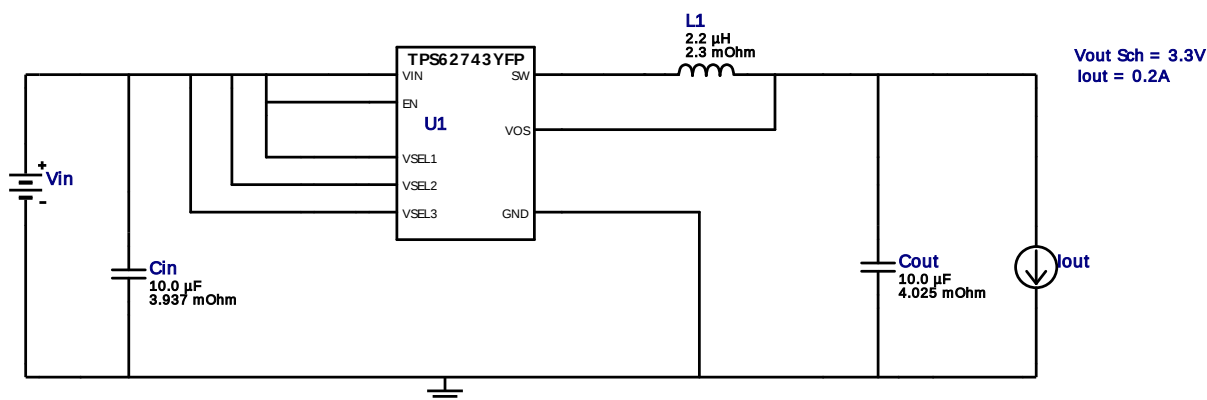
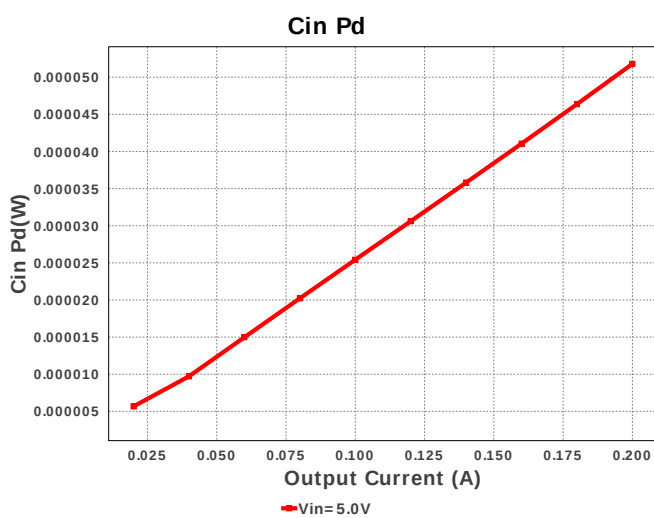
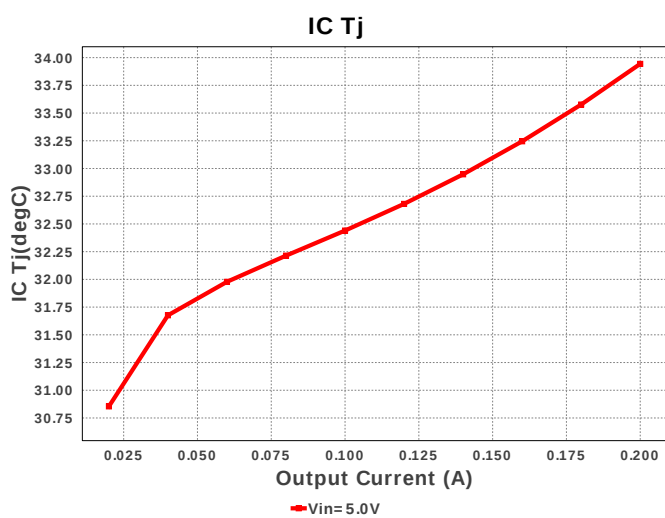
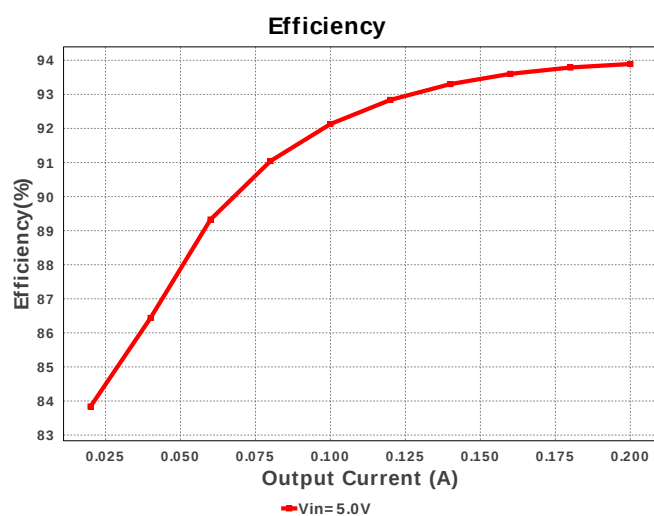
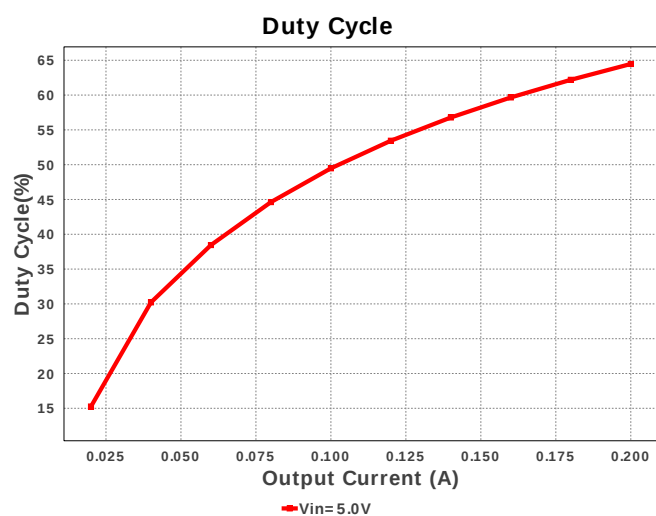
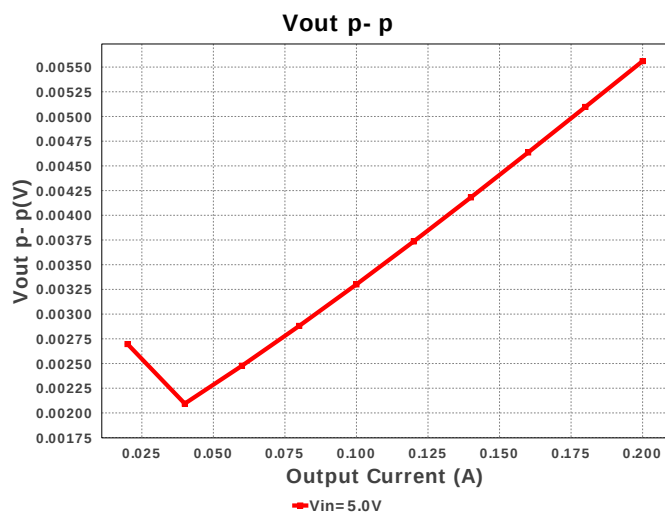
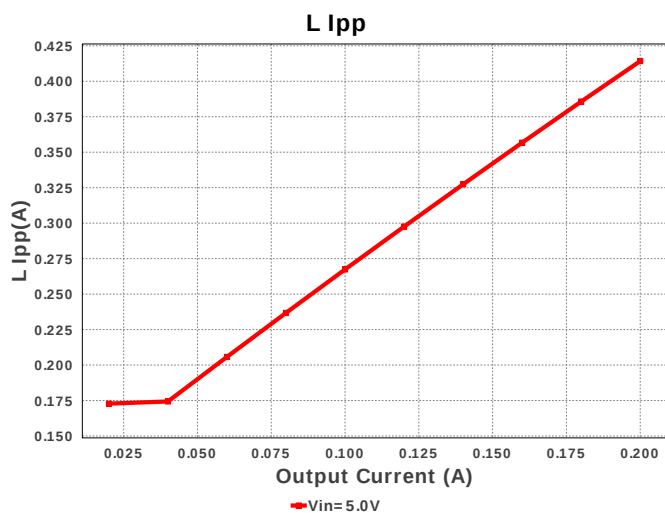
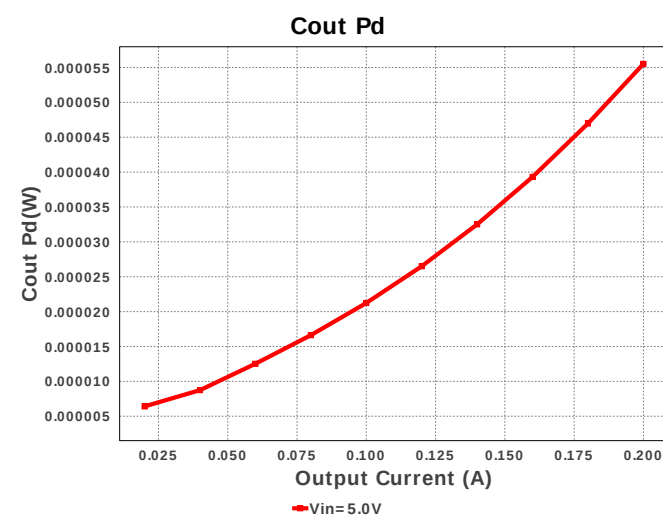
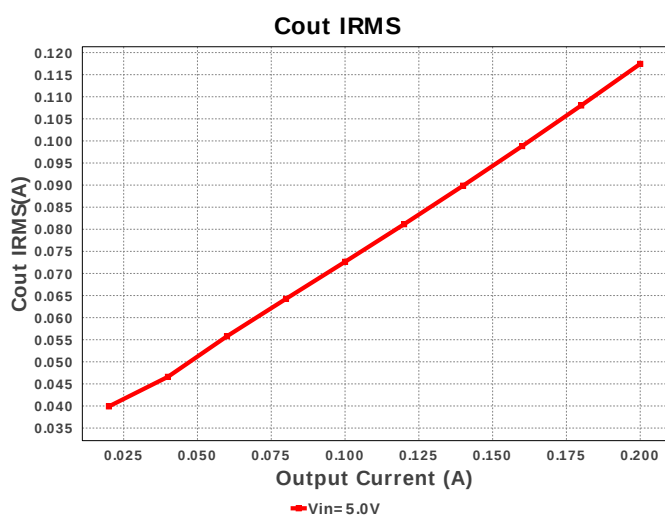
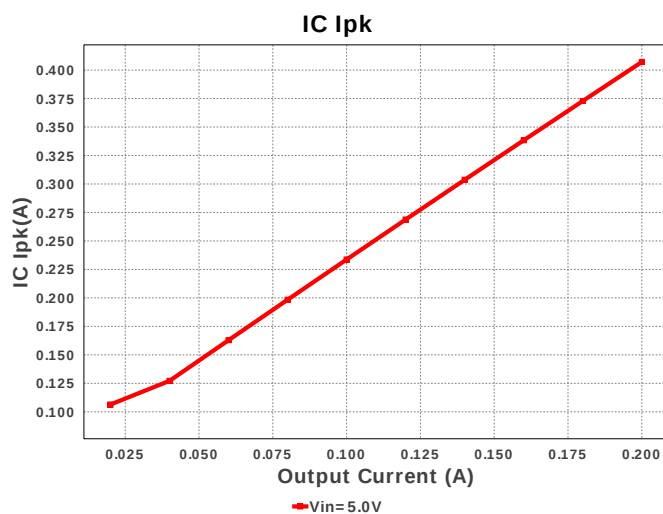
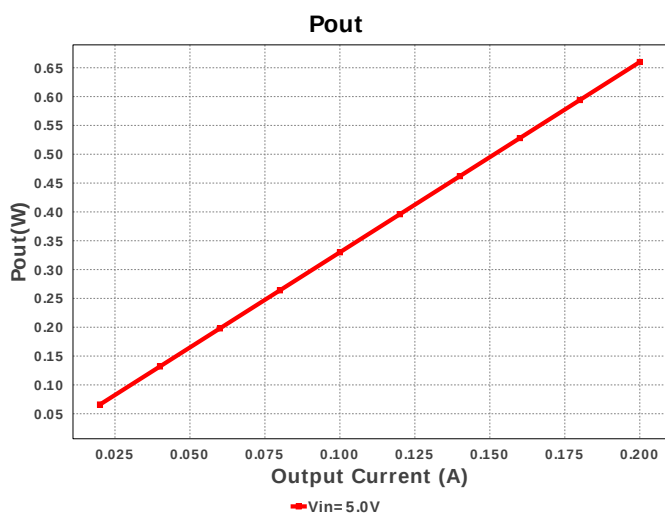
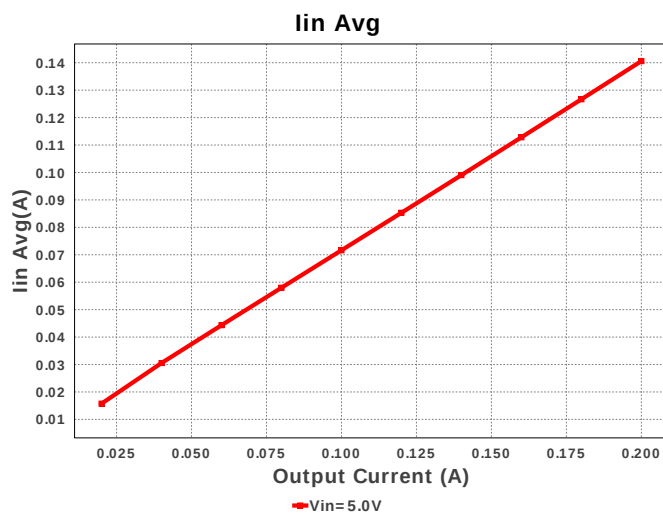
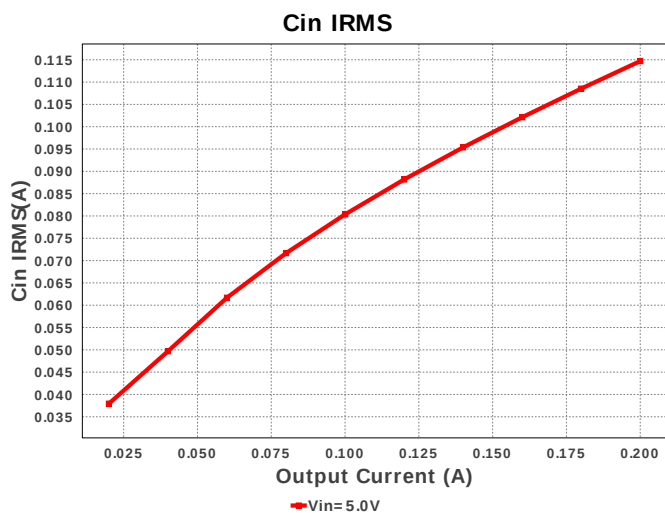


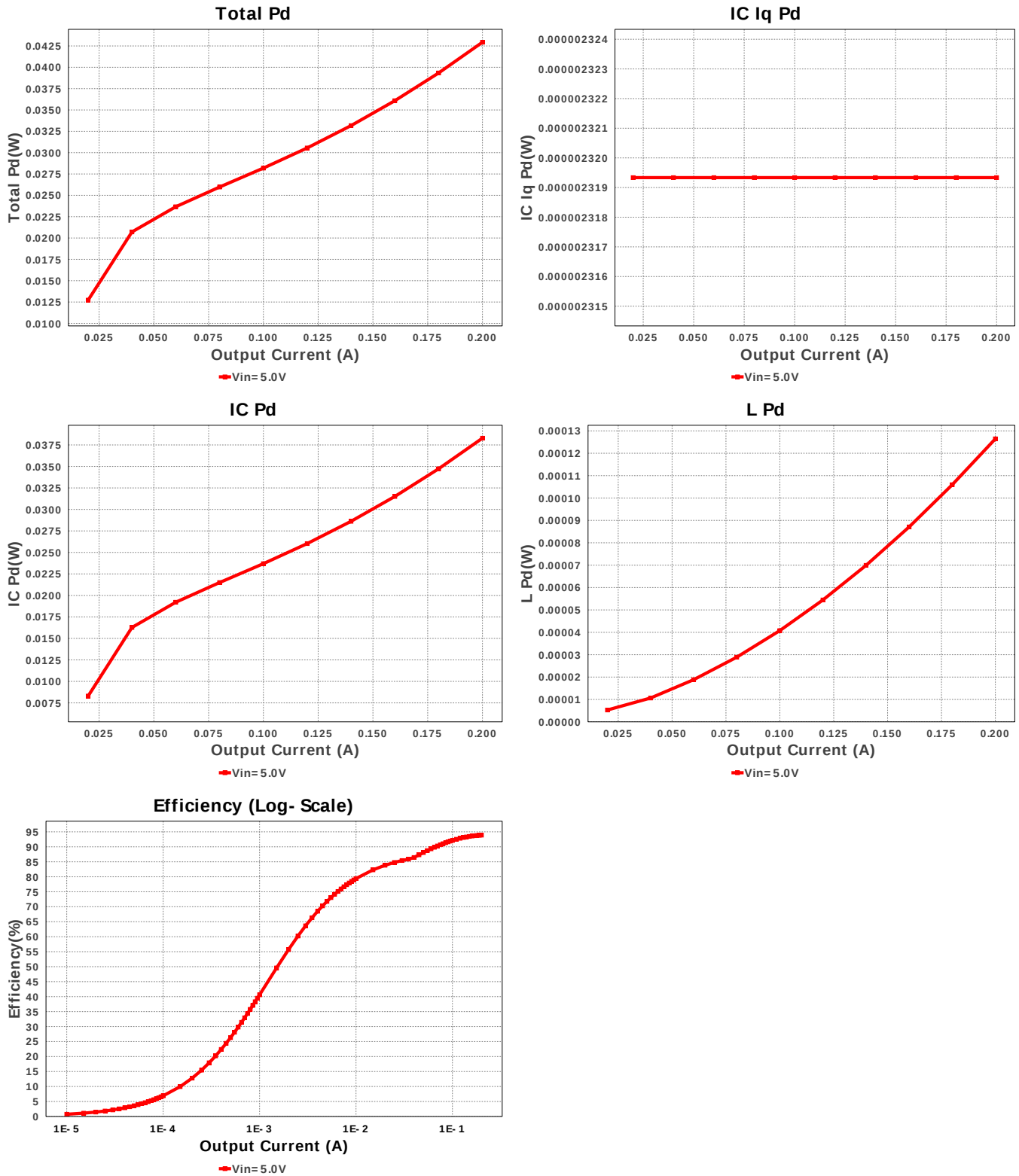


Electrical BOM

#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
1.	Cin	MuRata	GRM219R61A106KE44D Series= X5R	Cap= 10.0 uF ESR= 3.937 mOhm VDC= 10.0 V IRMS= 2.7713 A	1	\$0.03	 0805 7 mm ²
2.	Cout	MuRata	GRM21BR60J106ME19L Series= X5R	Cap= 10.0 uF ESR= 4.025 mOhm VDC= 6.3 V IRMS= 2.6173 A	1	\$0.02	 0805 7 mm ²
3.	L1	Coiltronics	HC2LP-2R2-R	L= 2.2 µH DCR= 2.3 mOhm	1	\$2.22	 HC2LP 449 mm ²
4.	U1	Texas Instruments	TPS62743YFPR	Switcher	1	\$0.70	 YFP0008AGAC 5 mm ²







Operating Values

#	Name	Value	Category	Description
1.	Cin IRMS	114.7 mA	Current	Input capacitor RMS ripple current
2.	Cout IRMS	117.444 mA	Current	Output capacitor RMS ripple current
3.	IC Ipk	407.103 mA	Current	Peak switch current in IC
4.	Iin Avg	140.59 mA	Current	Average input current
5.	L Ipp	414.21 mA	Current	Peak-to-peak inductor ripple current
6.	BOM Count	4	General	Total Design BOM count
7.	FootPrint	468.0 mm ²	General	Total Foot Print Area of BOM components
8.	Frequency	1.129 MHz	General	Switching frequency
9.	Mode	PFM	General	Conduction Mode
10.	Pout	660.0 mW	General	Total output power
11.	Total BOM	\$2.97	General	Total BOM Cost

#	Name	Value	Category	Description
12.	Vout OP	3.3 V	Op_Point	Operational Output Voltage
13.	Vout Sch	3.3 V	Op_Point	Output voltage selected
14.	Duty Cycle	64.467 %	Op_point	Duty cycle
15.	Efficiency	93.892 %	Op_point	Steady state efficiency
16.	IC Tj	33.944 degC	Op_point	IC junction temperature
17.	ICThetaJA	103.0 degC/W	Op_point	IC junction-to-ambient thermal resistance
18.	IOUT_OP	200.0 mA	Op_point	Iout operating point
19.	VIN_OP	5.0 V	Op_point	Vin operating point
20.	Vout p-p	4.742 mV	Op_point	Peak-to-peak output ripple voltage
21.	Cin Pd	51.796 μ W	Power	Input capacitor power dissipation
22.	Cout Pd	55.517 μ W	Power	Output capacitor power dissipation
23.	IC Iq Pd	2.319 μ W	Power	IC Iq Pd
24.	IC Pd	38.288 mW	Power	IC power dissipation
25.	L Pd	126.449 μ W	Power	Inductor power dissipation
26.	Total Pd	42.936 mW	Power	Total Power Dissipation
27.	Vout Tolerance	303.03 m%		Vout Tolerance based on IC Tolerance (no load) and voltage divider resistors if applicable

Design Inputs

#	Name	Value	Description
1.	Iout	200.0 m	Maximum Output Current
2.	VinMax	5.0	Maximum input voltage
3.	VinMin	5.0	Minimum input voltage
4.	Vout	3.3	Output Voltage
5.	base_pn	TPS62743	Texas Instruments Base Part Number
6.	source	DC	Input Source Type
7.	ta	30.0	Ambient temperature
1.	Vout Sch	3.3	Output voltage selected

Design Assistance

1. [TPS62743 Product Folder](http://www.ti.com/product/TPS62743) : <http://www.ti.com/product/TPS62743> : contains the data sheet and other resources.

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