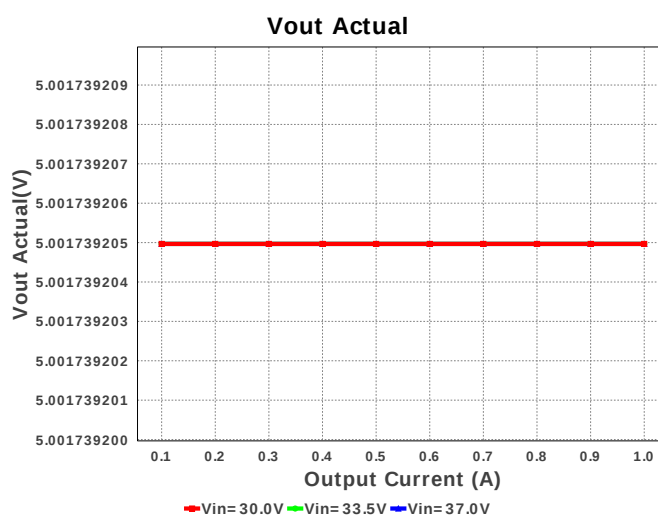
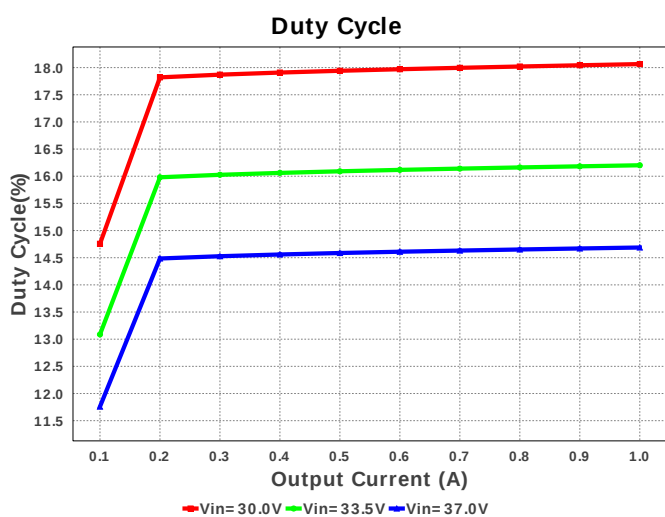
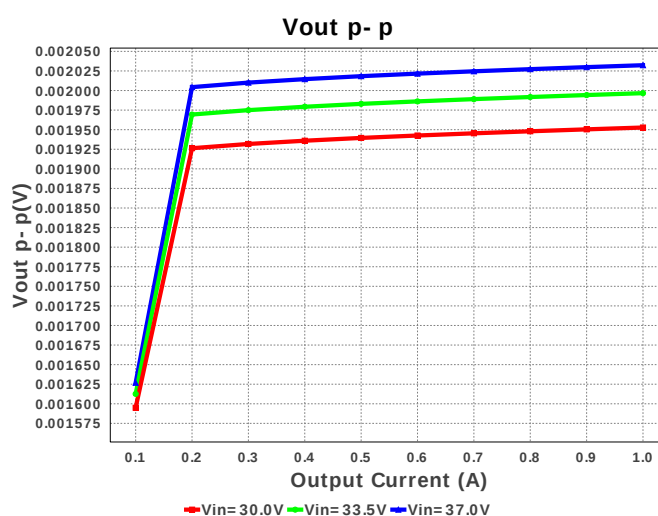
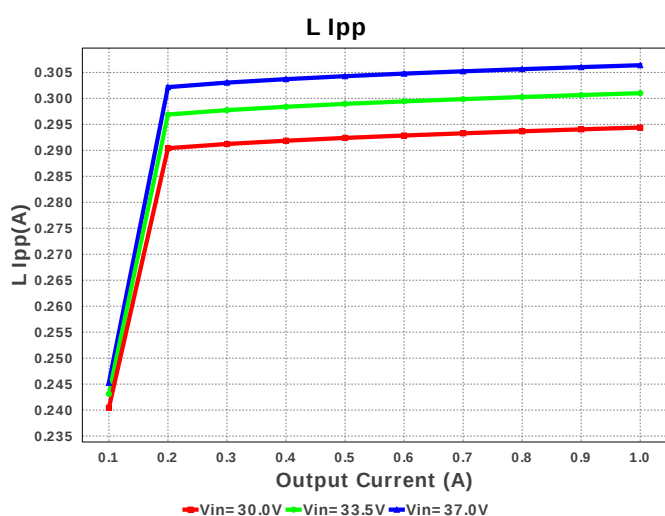
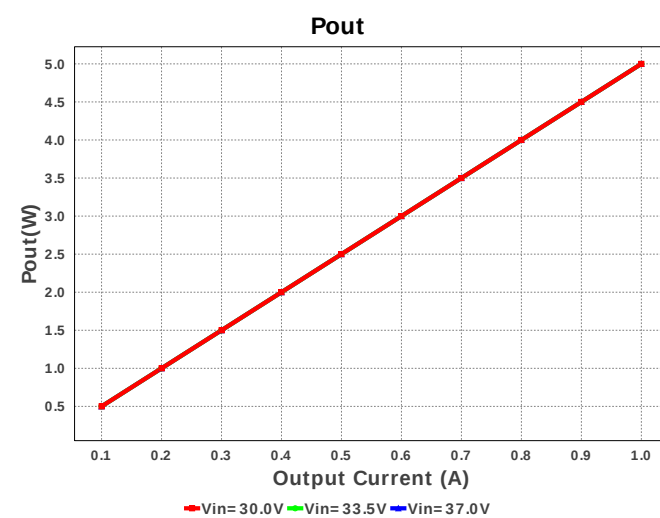
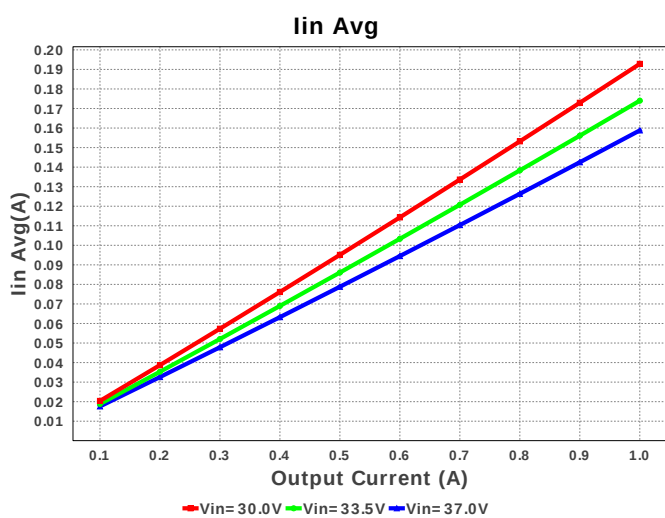
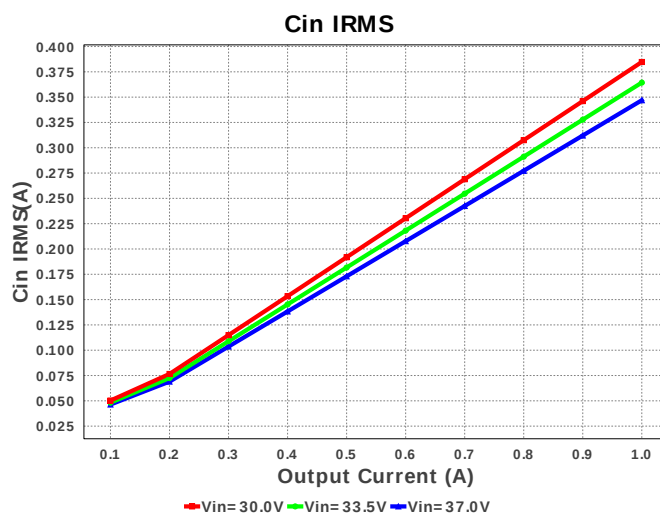
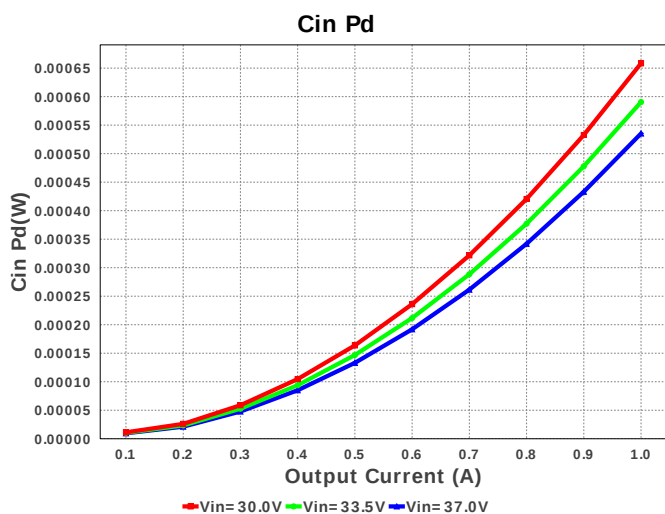
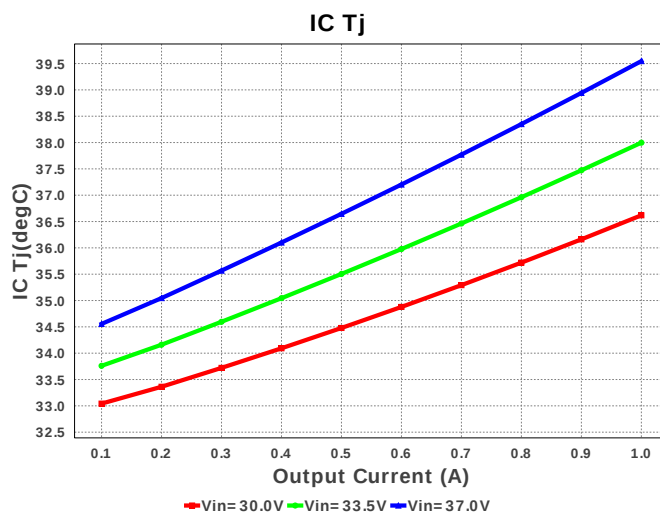
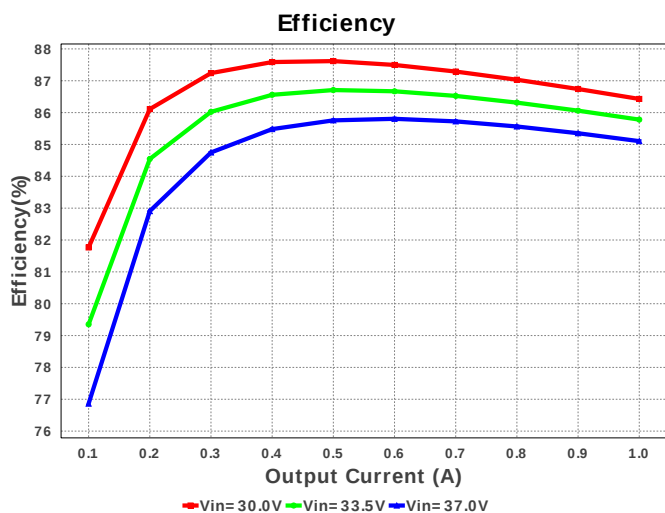
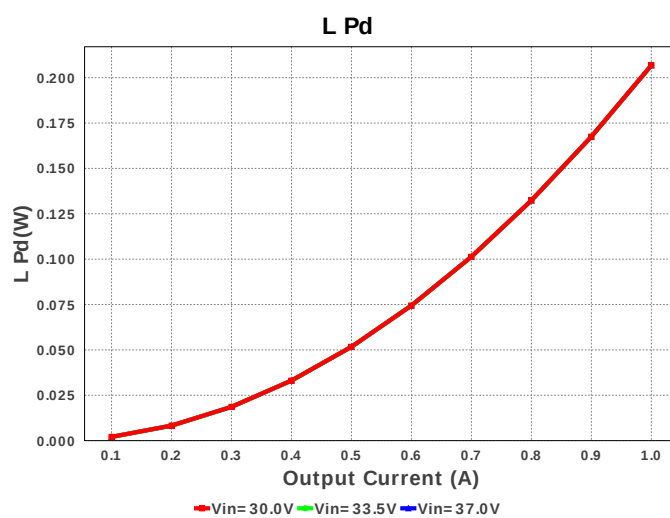
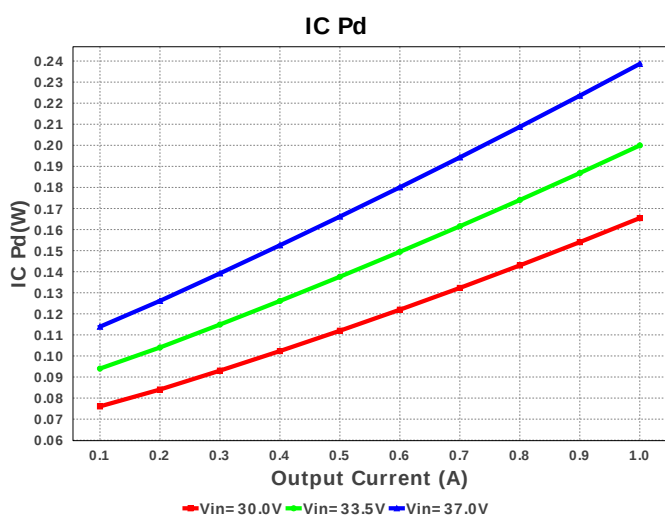
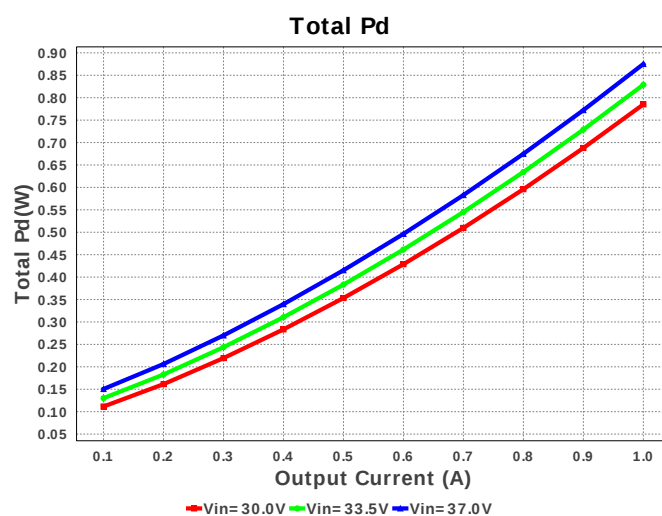
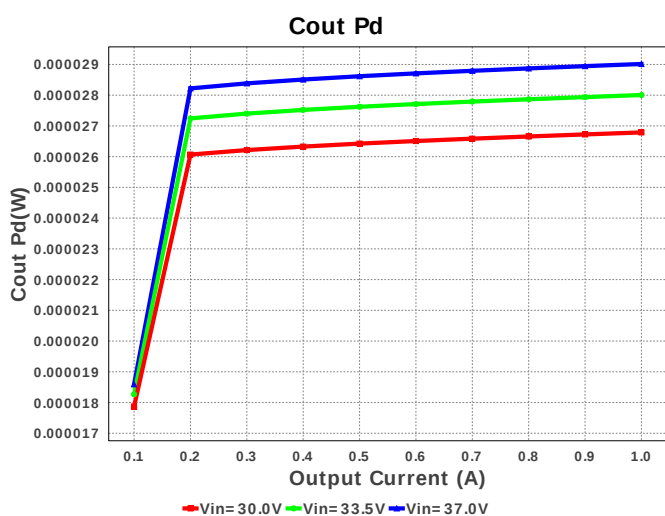
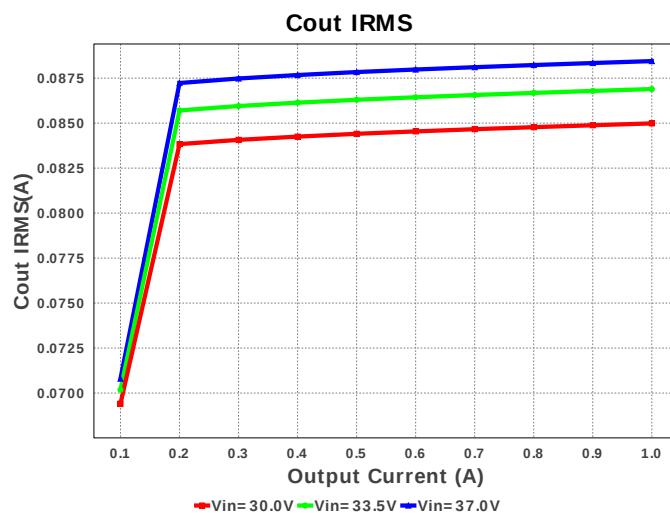
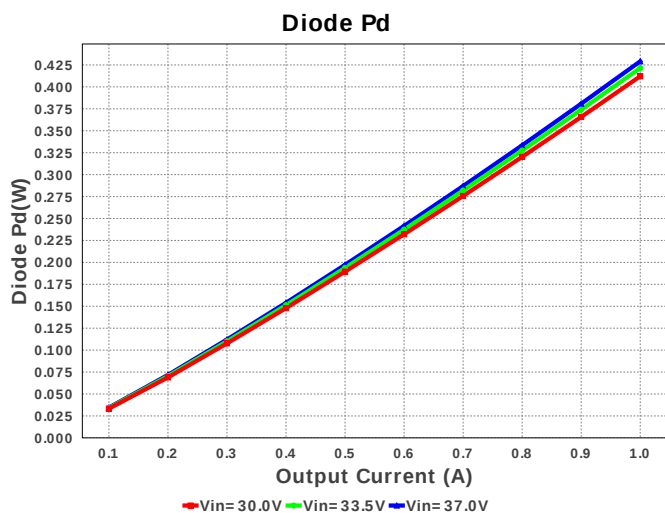


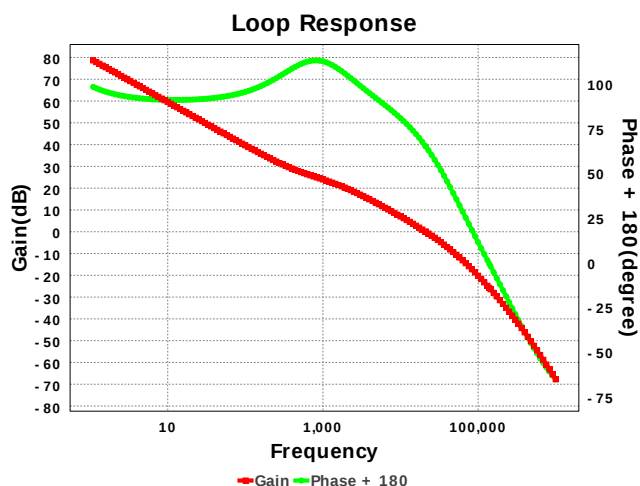


#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
12.	Rpg	Vishay-Dale	CRCW04021K00FKED Series= CRCW..e3	Res= 1000.0 Ohm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3 mm ²
13.	Rt	Vishay-Dale	CRCW0402210KFKED Series= CRCW..e3	Res= 210.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3 mm ²
14.	U1	Texas Instruments	TPS54341DPRR	Switcher	1	\$2.00	 DPR0010A 25 mm ²









Operating Values

#	Name	Value	Category	Description
1.	Cin IRMS	347.336 mA	Current	Input capacitor RMS ripple current
2.	Cout IRMS	88.721 mA	Current	Output capacitor RMS ripple current
3.	Iin Avg	159.24 mA	Current	Average input current
4.	L Ipp	307.34 mA	Current	Peak-to-peak inductor ripple current
5.	BOM Count	14	General	Total Design BOM count
6.	FootPrint	182.0 mm ²	General	Total Foot Print Area of BOM components
7.	Frequency	464.858 kHz	General	Switching frequency
8.	Pout	5.0 W	General	Total output power
9.	Total BOM	\$2.54	General	Total BOM Cost
10.	ICThetaJA Effective	40.0 degC/W	Op_Point	Effective IC Junction-to-Ambient Thermal Resistance
11.	Low Freq Gain	78.635 dB	Op_Point	Gain at 10Hz
12.	Vout Actual	5.002 V	Op_Point	Vout Actual calculated based on selected voltage divider resistors
13.	Vout OP	5.0 V	Op_Point	Operational Output Voltage
14.	Cross Freq	21.133 kHz	Op_point	Bode plot crossover frequency
15.	Duty Cycle	14.733 %	Op_point	Duty cycle
16.	Efficiency	84.86 %	Op_point	Steady state efficiency
17.	Gain Marg	-25.749 dB	Op_point	Bode Plot Gain Margin
18.	IC Tj	39.548 degC	Op_point	IC junction temperature
19.	IOUT_OP	1.0 A	Op_point	Iout operating point
20.	Phase Marg	65.545 deg	Op_point	Bode Plot Phase Margin
21.	VIN_OP	37.0 V	Op_point	Vin operating point
22.	Vout p-p	2.039 mV	Op_point	Peak-to-peak output ripple voltage
23.	Cin Pd	536.618 μ W	Power	Input capacitor power dissipation
24.	Cout Pd	29.195 μ W	Power	Output capacitor power dissipation
25.	Diode Pd	445.954 mW	Power	Diode power dissipation
26.	IC Pd	238.708 mW	Power	IC power dissipation
27.	L Pd	206.8 mW	Power	Inductor power dissipation
28.	Total Pd	892.031 mW	Power	Total Power Dissipation
29.	Vout Tolerance	2.714 %		Vout Tolerance based on IC Tolerance (no load) and voltage divider resistors if applicable

Design Inputs

#	Name	Value	Description
1.	Iout	1.0	Maximum Output Current
2.	VinMax	37.0	Maximum input voltage
3.	VinMin	30.0	Minimum input voltage
4.	Vout	5.0	Output Voltage
5.	base_pn	TPS54341	Base Product Number
6.	source	DC	Input Source Type
7.	Ta	30.0	Ambient temperature

Design Assistance

1. **TPS54341** Product Folder : <http://www.ti.com/product/TPS54341> : contains the data sheet and other resources.

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