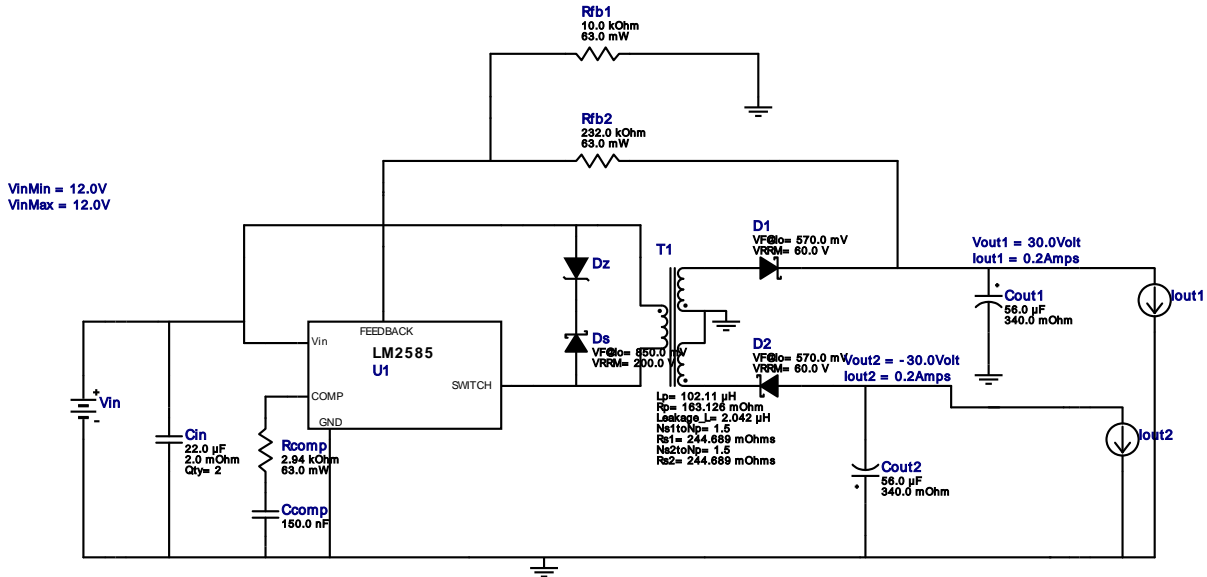
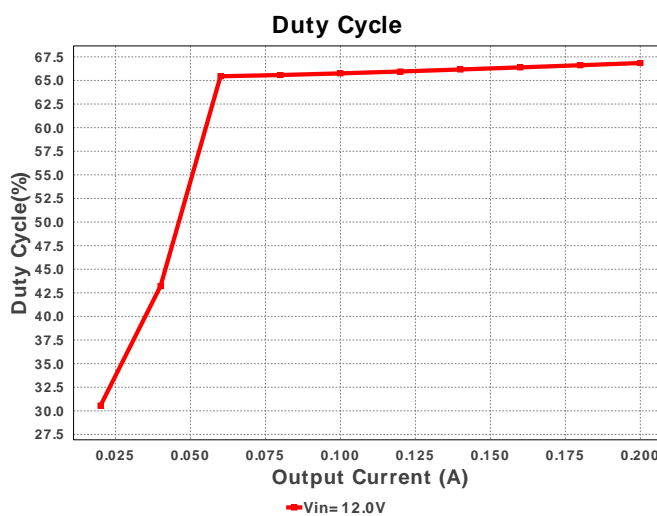
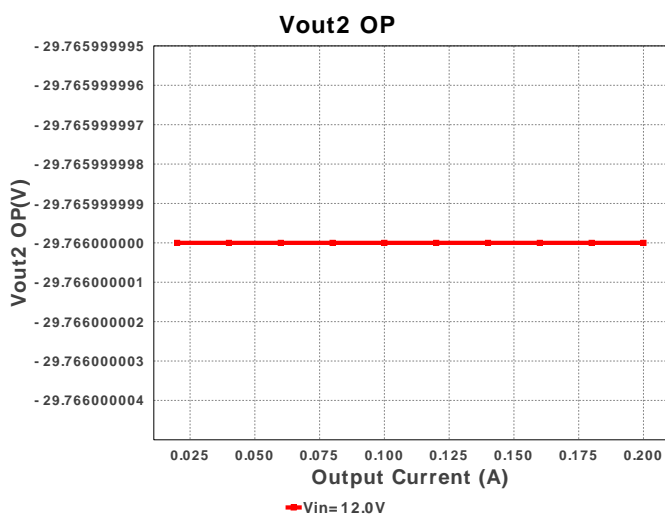
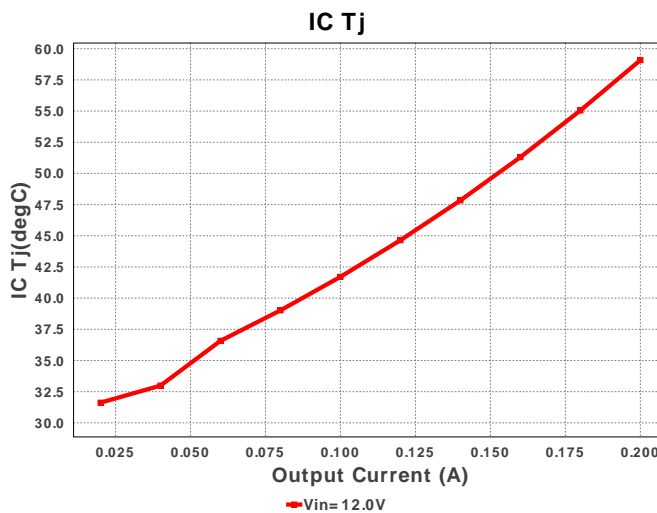
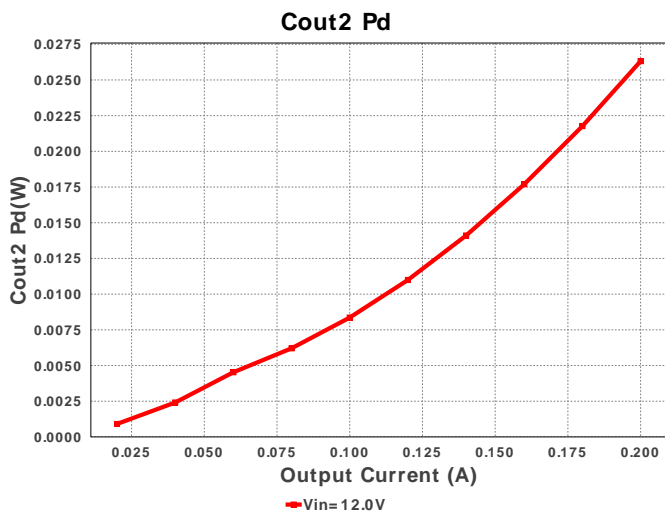


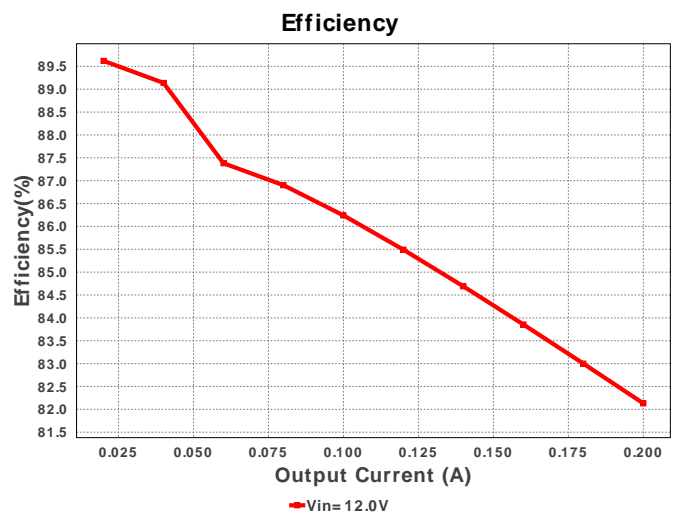
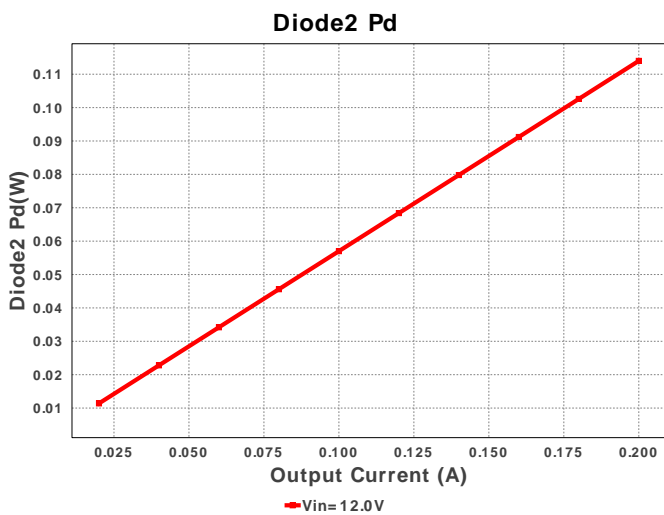
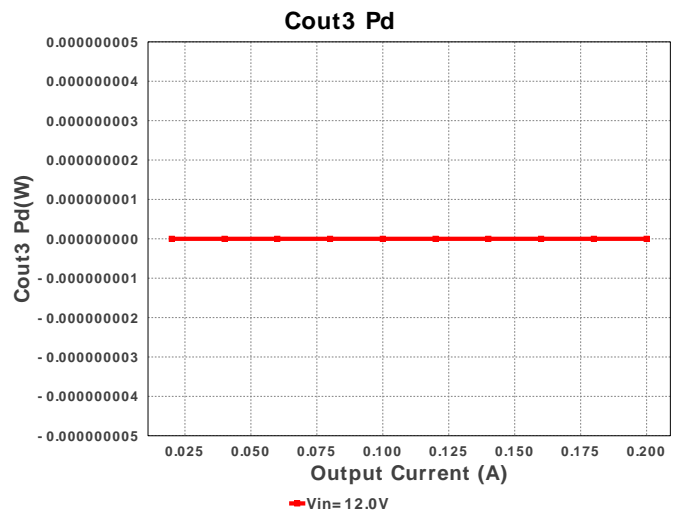
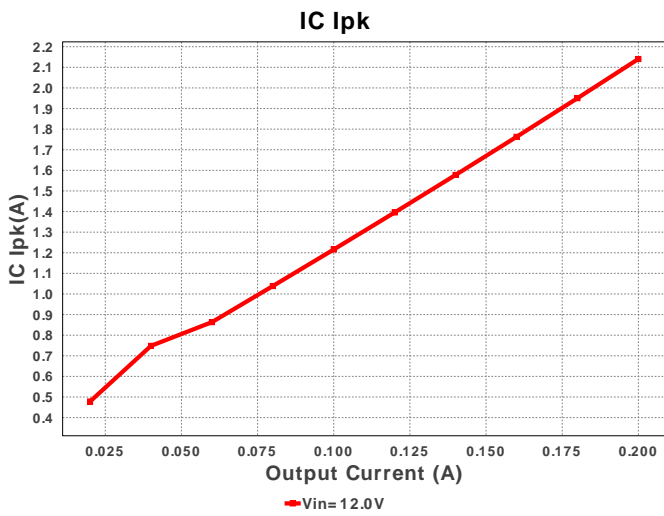
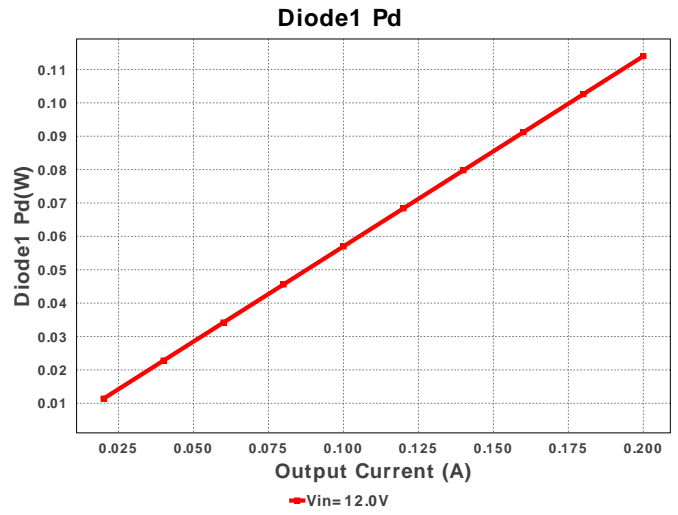
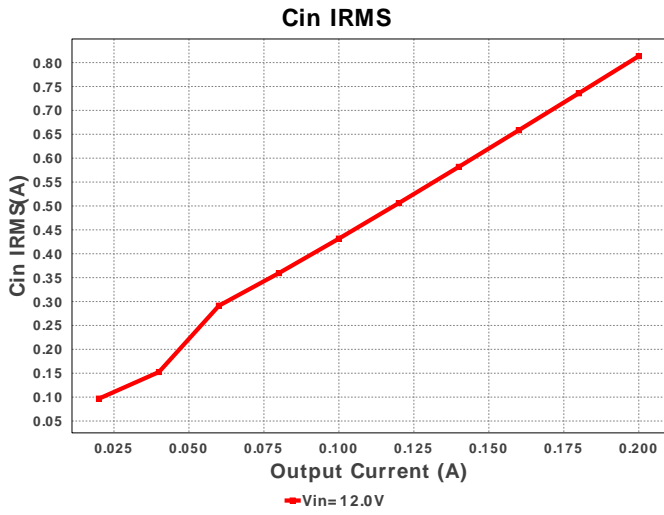
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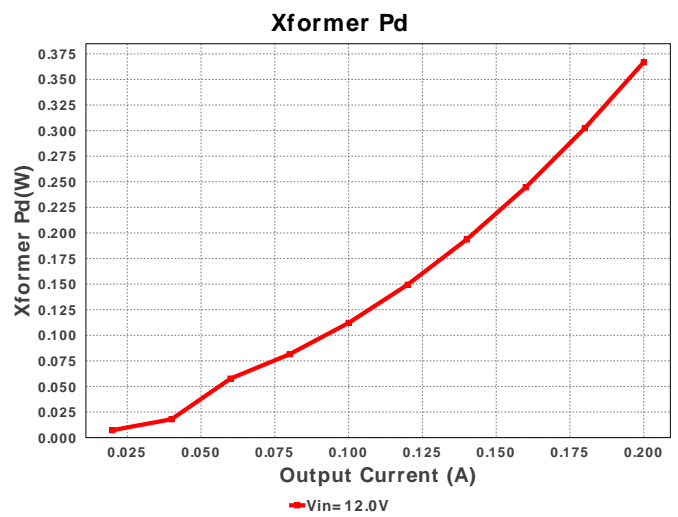
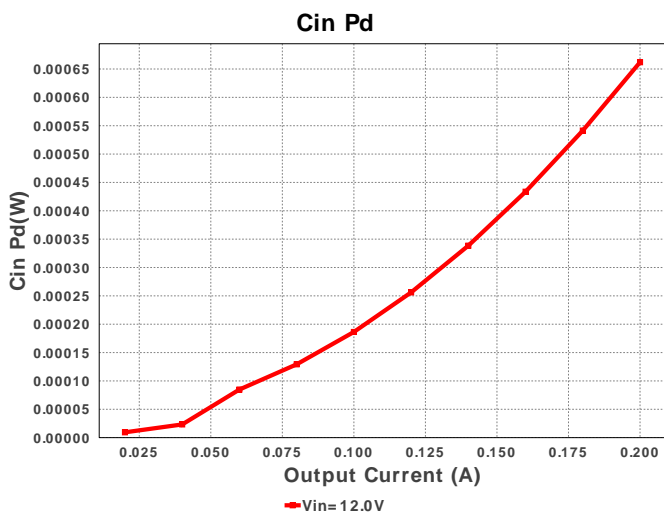
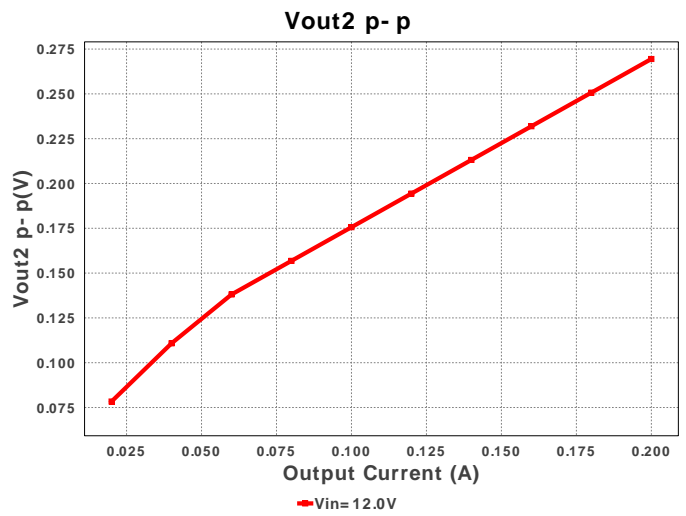
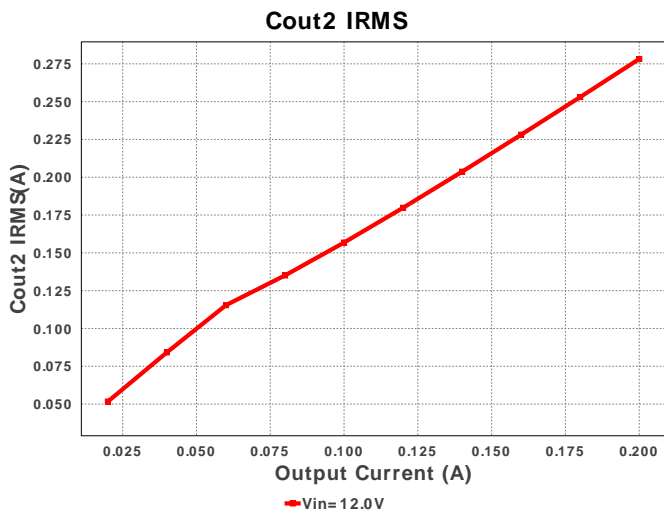
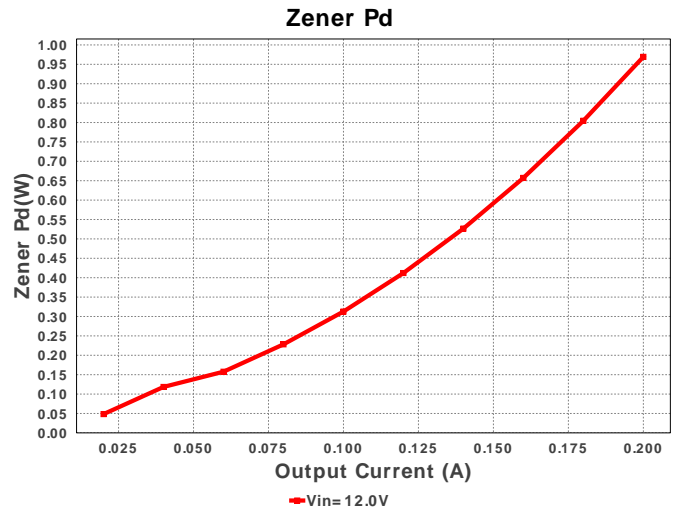
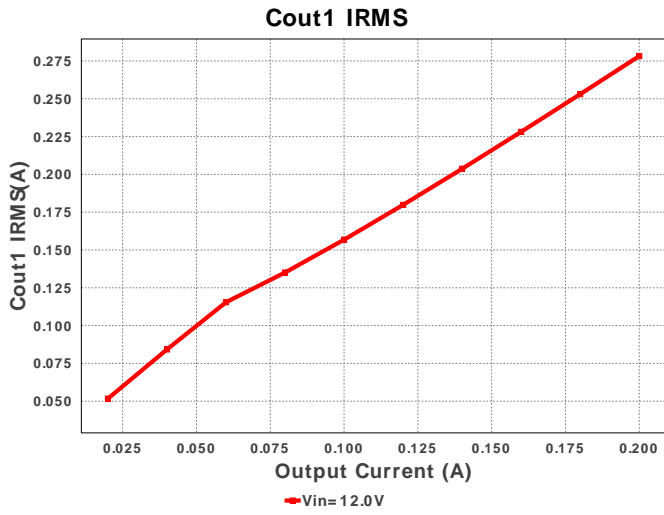
 Design : 3779120/652 LM2585SX-ADJ/NOPB
 LM2585SX-ADJ/NOPB 12.0V-12.0V to 30.0V @ 0.2A

Electrical BOM

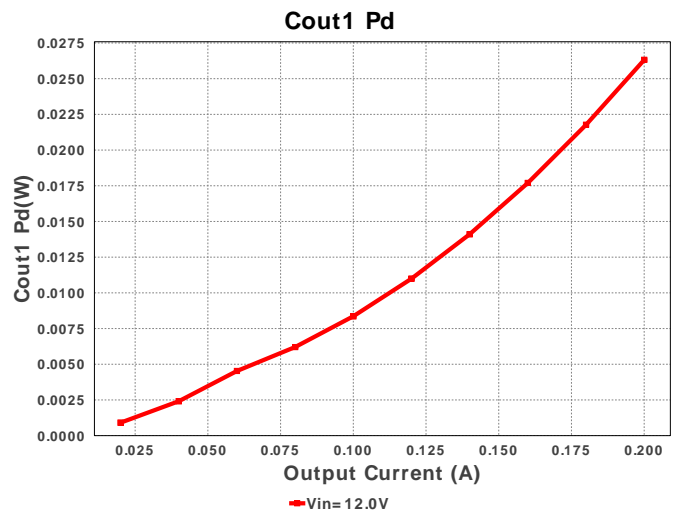
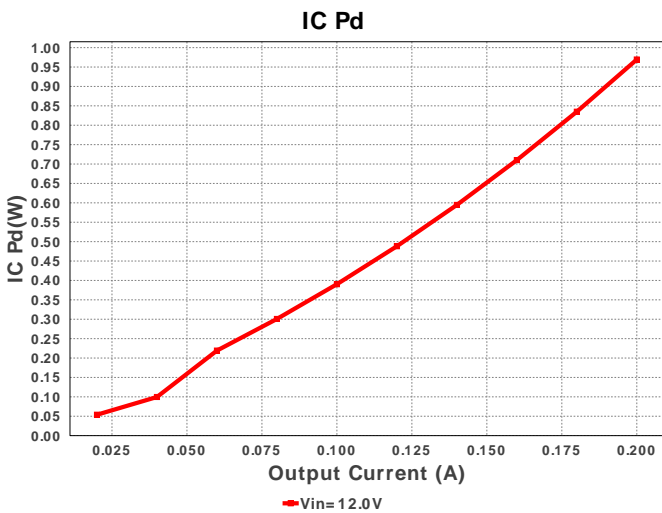
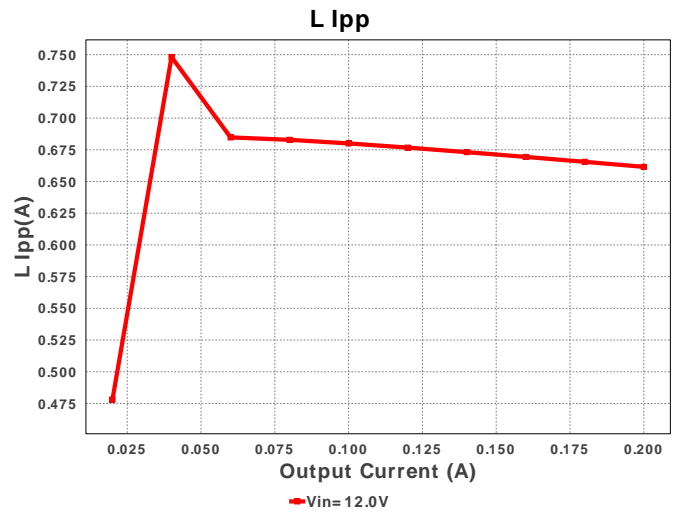
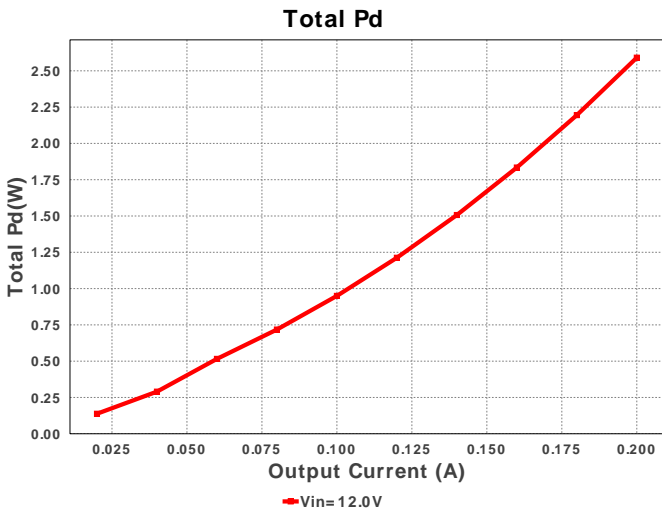
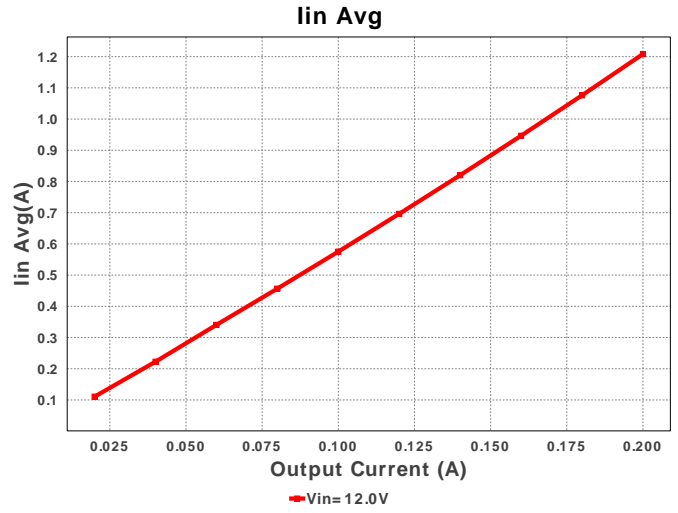
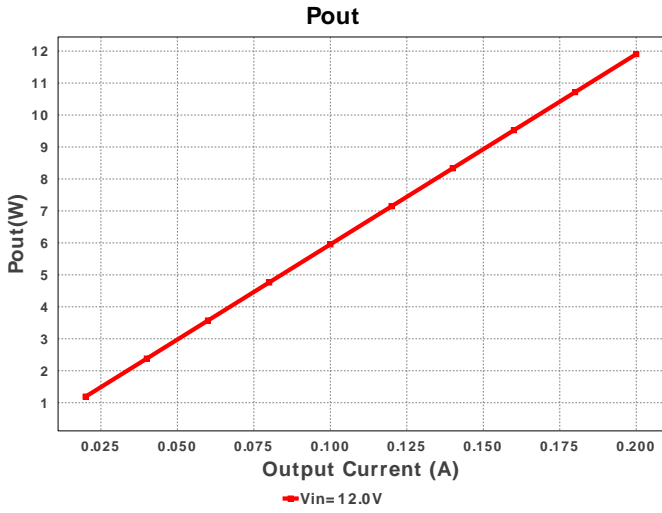
#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
1.	Ccomp	MuRata	GRM155R61A154KE19D Series= X5R	Cap= 150.0 nF VDC= 10.0 V IRMS= 0.0 A	1	\$0.01	0402 3mm2
2.	Cin	MuRata	GRM32ER61E226KE15L Series= X5R	Cap= 22.0 uF ESR= 2.0 mOhm VDC= 25.0 V IRMS= 3.67 A	2	\$0.28	1210 15mm2
3.	Cout1	Nichicon	UUD1H560MNL1GS Series= uD	Cap= 56.0 uF ESR= 340.0 mOhm VDC= 50.0 V IRMS= 300.0 mA	1	\$0.20	SM_RADIAL_8MM 113mm2
4.	Cout2	Nichicon	UUD1H560MNL1GS Series= uD	Cap= 56.0 uF ESR= 340.0 mOhm VDC= 50.0 V IRMS= 300.0 mA	1	\$0.20	SM_RADIAL_8MM 113mm2
5.	D1	NXP Semiconductor	PMEG6010CEH,115	VF@Io= 570.0 mV VRRM= 60.0 V	1	\$0.11	SOD-123F 12mm2
6.	D2	NXP Semiconductor	PMEG6010CEH,115	VF@Io= 570.0 mV VRRM= 60.0 V	1	\$0.11	SOD-123F 12mm2
7.	Ds	Diodes Inc.	DFLS1200-7	VF@Io= 850.0 mV VRRM= 200.0 V	1	\$0.21	PowerD1123 13mm2
8.	Dz	Micro Commercial Components	SMBJ5366B-TP	Zener	1	\$0.29	SMB 44mm2
9.	Rcomp	Vishay-Dale	CRCW04022K94FKED Series= CRCW..e3	Res= 2.94 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3mm2
10.	Rfb1	Vishay-Dale	CRCW040210K0FKED Series= CRCW..e3	Res= 10.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3mm2

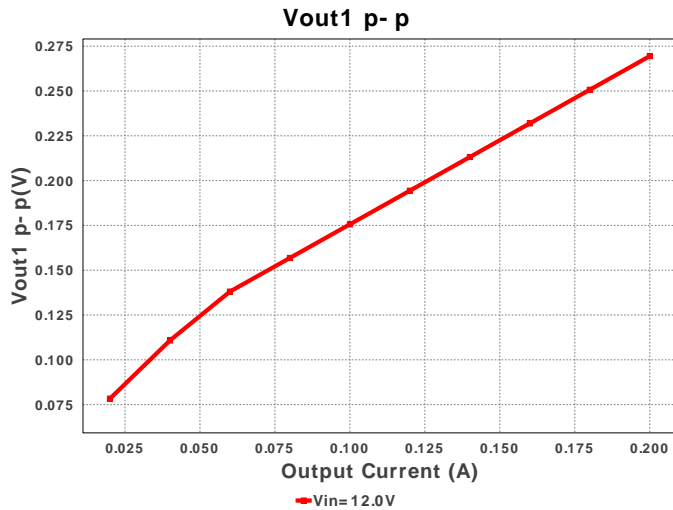
#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
11.	Rfb2	Vishay-Dale	CRCW0402232KFKED Series= CRCW..e3	Res= 232.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3mm2
12.	T1	CUSTOM	CUSTOM	Lp= 102.11 µH Rp= 163.126 mOhm Leakage_L= 2.042 µH Ns1toNp= 1.5 Rs1= 244.689 mOhms Ns2toNp= 1.5 Rs2= 244.689 mOhms	1	NA	CUSTOM 0mm2
13.	U1	Texas Instruments	LM2585SX-ADJ/NOPB	Switcher	1	\$3.00	NA 0mm2











Operating Values

#	Name	Value	Category	Description
1.	Cin IRMS	820.244 mA	Current	Input capacitor RMS ripple current
2.	Cout1 IRMS	280.293 mA	Current	Output capacitor1 RMS ripple current
3.	Cout2 IRMS	280.293 mA	Current	Output capacitor2 RMS ripple current
4.	IC Ipk	2.143 A	Current	Peak switch current
5.	Iin Avg	1.204 A	Current	Average input current
6.	L Ipp	673.516 mA	Current	Peak-to-peak inductor ripple current
7.	BOM Count	14	General	Total Design BOM count
8.	FootPrint	379.0 mm2	General	Total Foot Print Area of BOM components
9.	Frequency	100.0 kHz	General	Switching frequency
10.	IC Tolerance	22.0 mV	General	IC Feedback Tolerance
11.	Pout	11.906 W	General	Total output power
12.	Total BOM	\$0.0	General	Total BOM Cost
13.	Vout1 OP	29.766 V	Op_Point	Operational Voltage 1
14.	Vout2 OP	-29.766 V	Op_Point	Operational Voltage 2
15.	Duty Cycle	66.788 %	Op_point	Duty cycle
16.	Efficiency	82.377 %	Op_point	Steady state efficiency
17.	IC Tj	30.0 degC	Op_point	IC junction temperature
18.	ICThetaJA	0.0 degC/W	Op_point	IC junction-to-ambient thermal resistance
19.	IOUT_OP	200.0 mA	Op_point	Iout operating point
20.	VIN_OP	12.0 V	Op_point	Vin operating point
21.	Vout1 p-p	271.909 mV	Op_point	Peak-to-peak output1 ripple voltage
22.	Vout2 p-p	271.909 mV	Op_point	Peak-to-peak output2 ripple voltage
23.	Cin Pd	672.799 μW	Power	Input capacitor power dissipation
24.	Cout1 Pd	26.712 mW	Power	Output capacitor1 power dissipation
25.	Cout1 Pd	26.712 mW	Power	Output capacitor1 power dissipation
26.	Cout2 Pd	26.712 mW	Power	Output capacitor2 power dissipation
27.	Cout3 Pd	0.0 W	Power	Output capacitor3 power dissipation
28.	Diode1 Pd	114.0 mW	Power	Diode1 power dissipation
29.	Diode2 Pd	114.0 mW	Power	Diode2 power dissipation
30.	IC Pd	896.358 mW	Power	IC power dissipation
31.	Total Pd	2.547 W	Power	Total Power Dissipation
32.	Xformer Pd	375.501 mW	Power	Transformer power dissipation
33.	Zener Pd	989.436 mW	Power	Zener power dissipation

Design Inputs

#	Name	Value	Description
1.	Iout	200.0 mA	Maximum Output Current
2.	Iout1	200.0 mAmps	Output Current #1
3.	Iout2	200.0 mAmps	Output Current #2
4.	VinMax	12.0 V	Maximum input voltage
5.	VinMin	12.0 V	Minimum input voltage
6.	Vout	30.0 V	Output Voltage
7.	Vout1	30.0 Volt	Output Voltage #1
8.	Vout2	-30.0 Volt	Output Voltage #2
9.	base_pn	LM2585	Base Product Number
10.	source	DC	Input Source Type
11.	Ta	30.0 degC	Ambient temperature

Design Assistance

1. **LM2585** Product Folder : <http://www.ti.com/product/lm2585> : contains the data sheet and other resources.

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