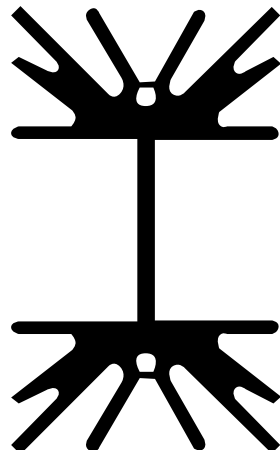



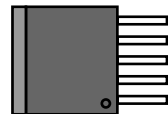
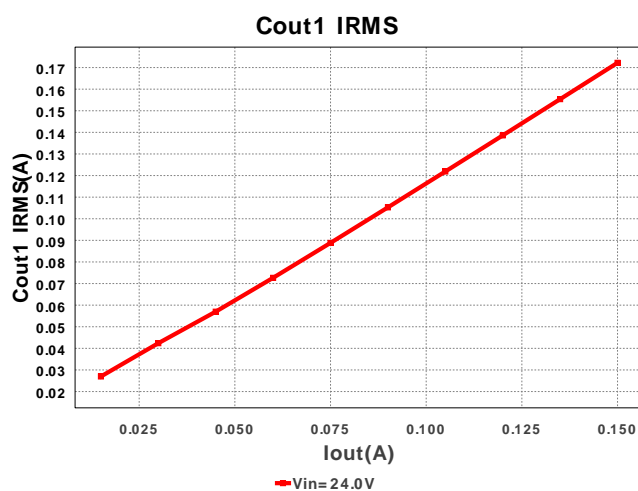
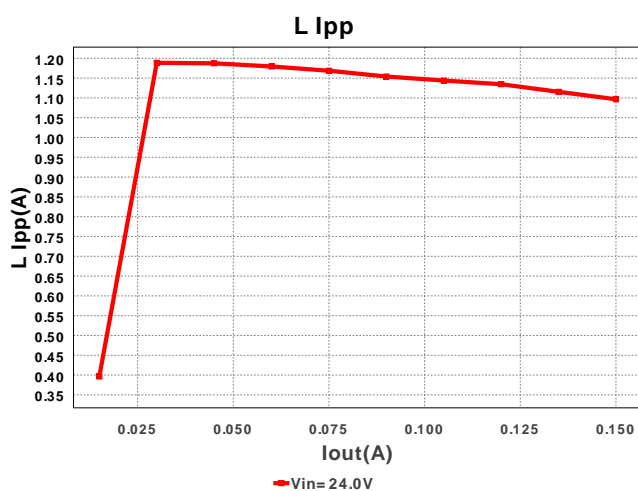
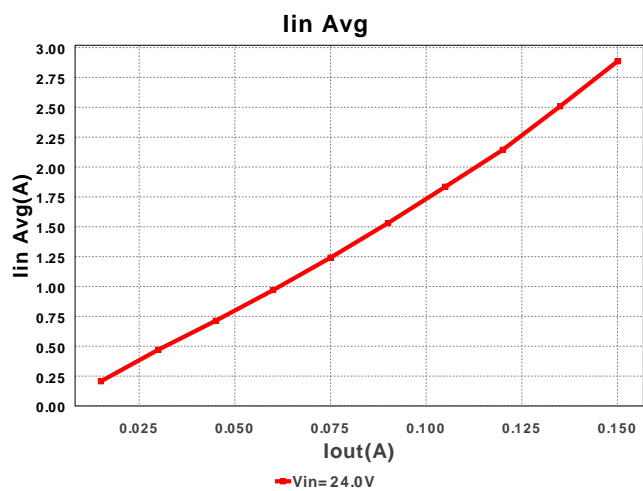
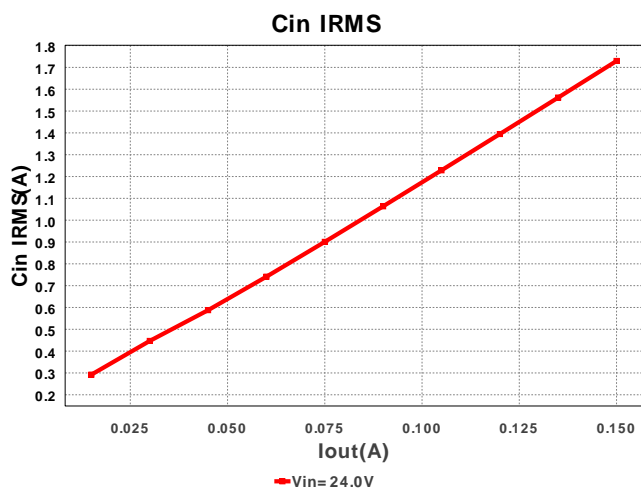
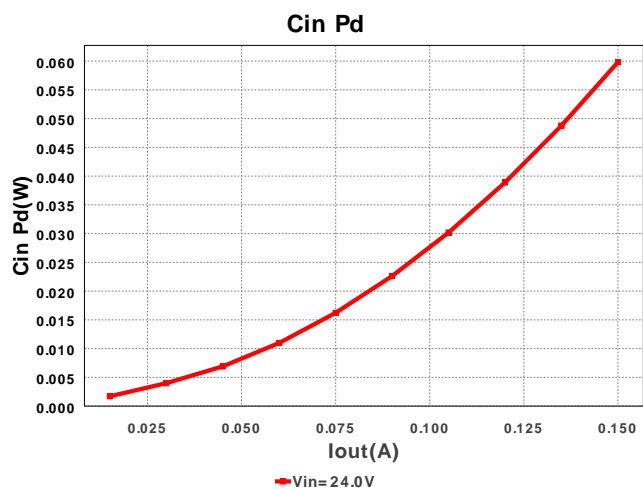
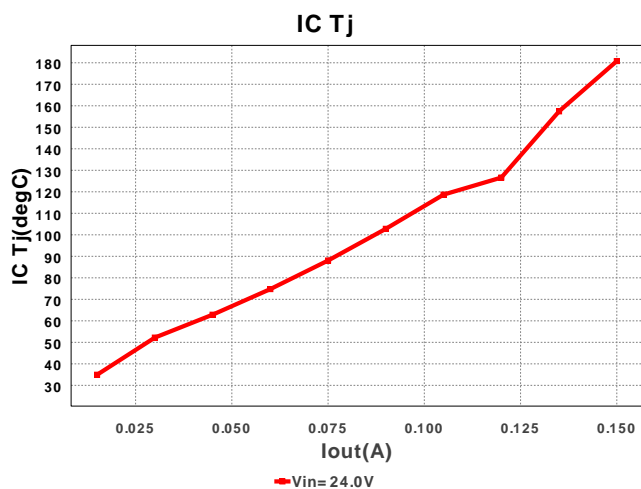
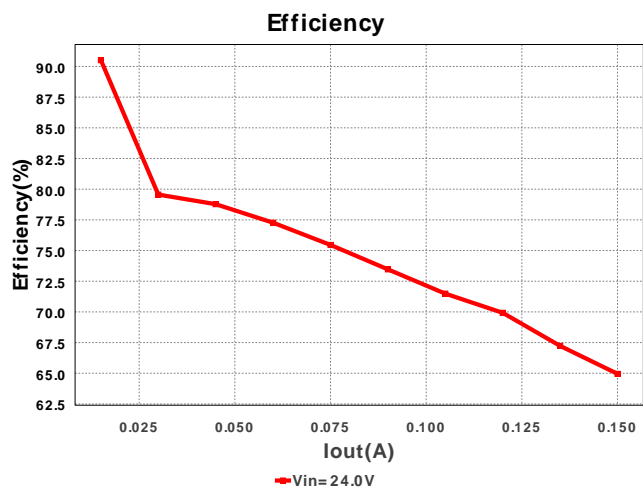
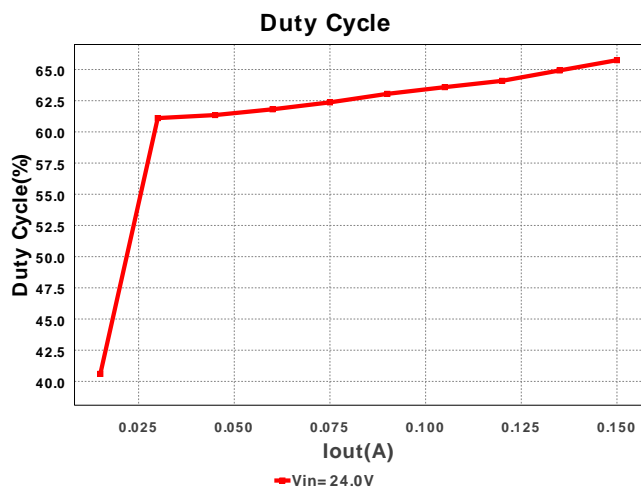


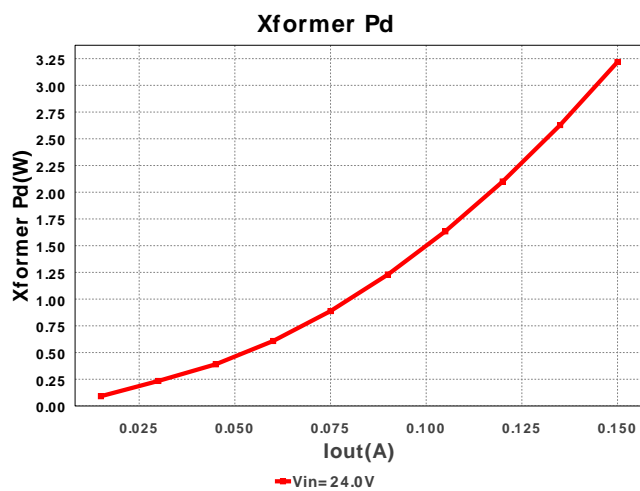
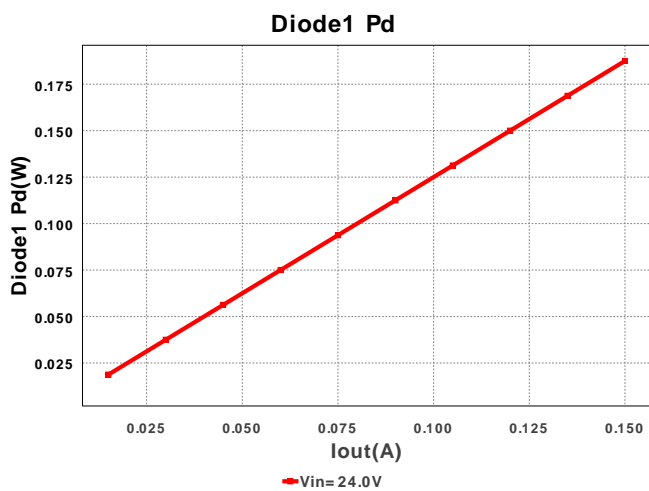
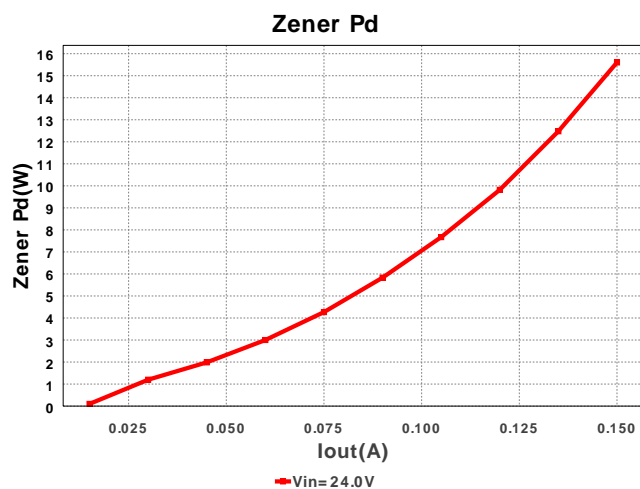
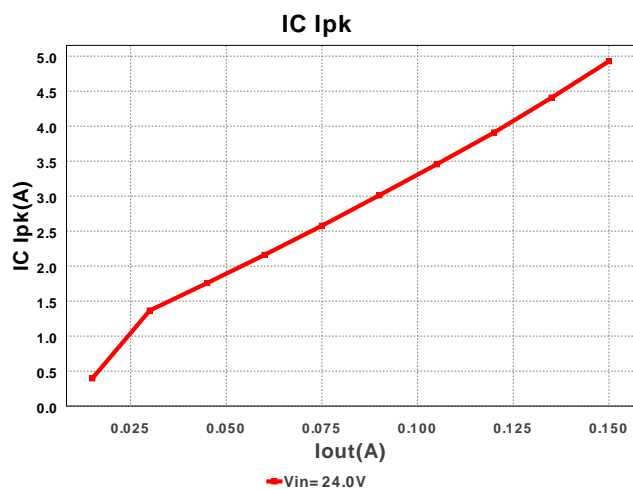
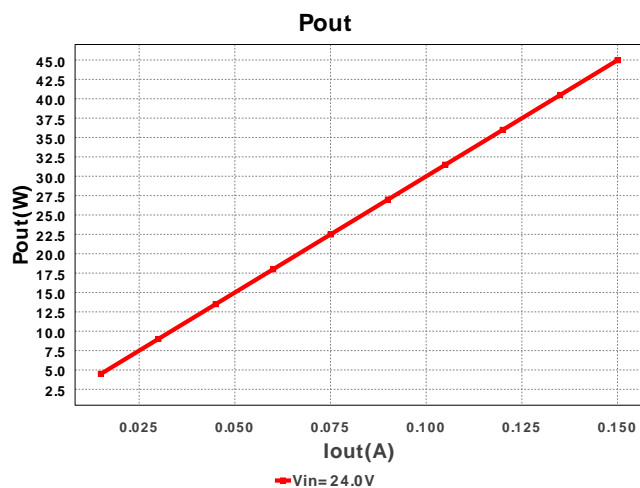
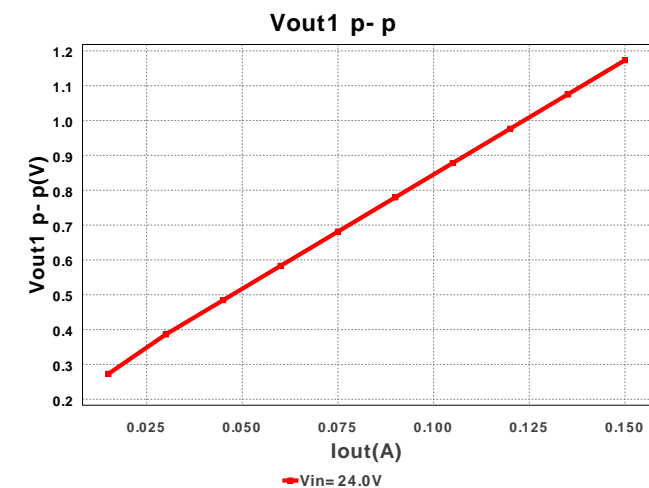
Electrical BOM

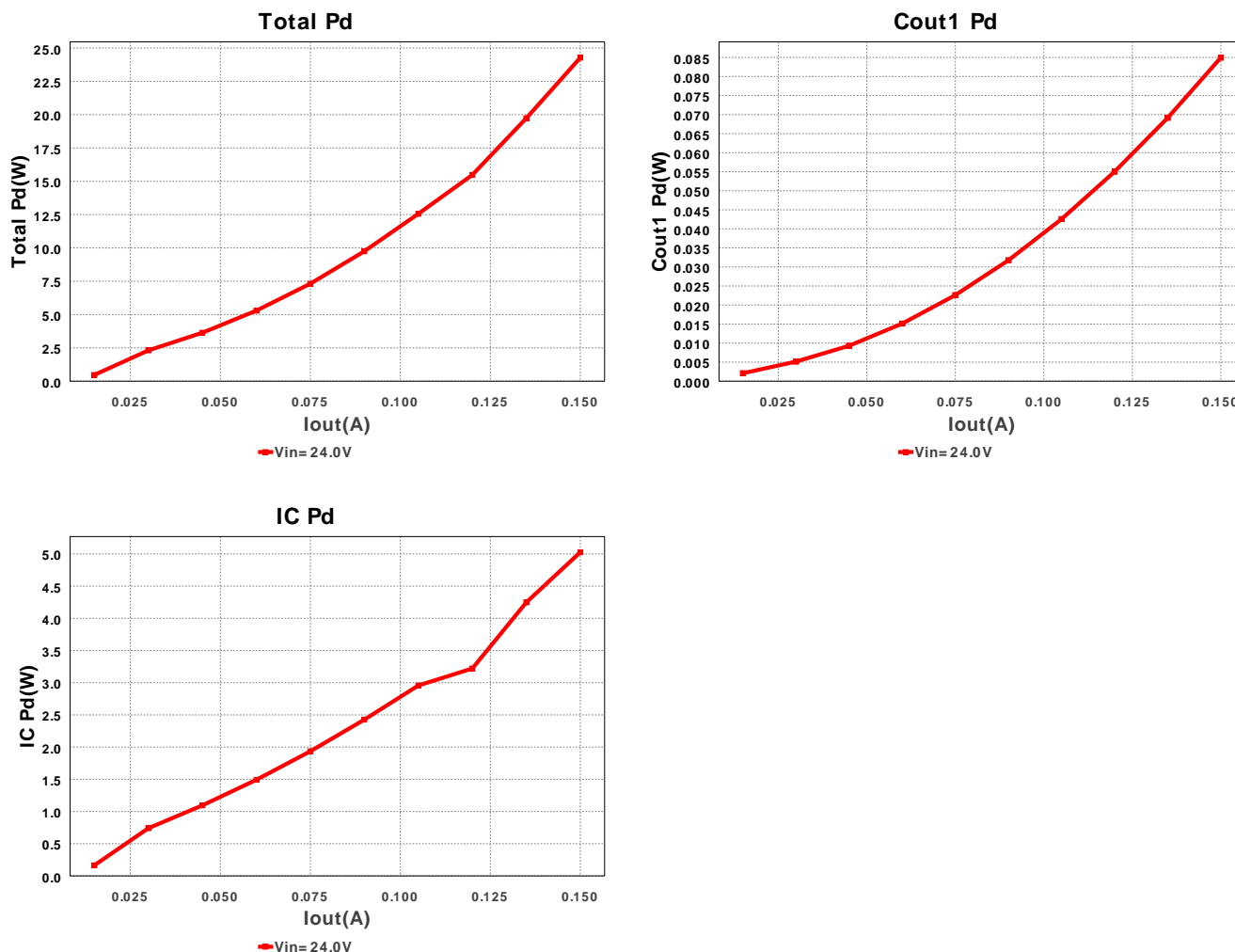
#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
1.	Ccomp	MuRata	GRM155R61A105KE15D Series= X5R	Cap= 1.0 uF VDC= 10.0 V IRMS= 0.0 A	1	\$0.01	0402 3mm2
2.	Cin	Sanyo	35SVPF82M Series= 1273	Cap= 82.0 uF ESR= 20.0 mOhm VDC= 35.0 V IRMS= 4.0 A	1	\$0.61	CAPSMT_62_E12 106mm2
3.	Cout1	Panasonic	EEUED2G100 Series= 286	Cap= 10.0 uF ESR= 2.865 Ohm VDC= 400.0 V IRMS= 300.0 mA	1	\$0.22	CAPPR5-10X20 144mm2
4.	D1	Diodes Inc.	MURS160-13-F	Vf@Io= 1.25 V VRRM= 600.0 V	1	\$0.11	SMB 44mm2
5.	Ds	Diodes Inc.	DFLS1200-7	Vf@Io= 850.0 mV VRRM= 200.0 V	1	\$0.21	PowerDI123 13mm2
6.	Dz	CUSTOM	CUSTOM	Zener	1	NA	CUSTOM 0mm2

#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
7.	HeatSink	Aavid	529802B02500G	Heatsink	1	\$0.98	 529802 1203mm2
8.	Rcomp	Vishay-Dale	CRCW04022K94FKED Series= CRCW..e3	Res= 2.94 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3mm2
9.	Rfb1	Vishay-Dale	CRCW04024K02FKED Series= CRCW..e3	Res= 4.02 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3mm2
10.	Rfb2	Vishay-Dale	CRCW0402976KFKED Series= CRCW..e3	Res= 976.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3mm2
11.	T1	CUSTOM	CUSTOM	Lp= 99.291 μ H Rp= 156.691 mOhm Leakage_L= 1.986 μ H Ns1toNp= 10.0 Rs1= 40.0 Ohms	1	NA	CUSTOM 0mm2
12.	U1	Texas Instruments	LM2587S-ADJ/NOPB	Switcher	1	\$3.95	 TS5B 0mm2









Operating Values

#	Name	Value	Category	Description
1.	Cin IRMS	1.731 A	Current	Input capacitor RMS ripple current
2.	Cout1 IRMS	172.345 mA	Current	Output capacitor1 RMS ripple current
3.	IC Ipk	4.906 A	Current	Peak switch current
4.	Iin Avg	2.867 A	Current	Average input current
5.	L Ipp	1.104 A	Current	Peak-to-peak inductor ripple current
6.	BOM Count	12	General	Total Design BOM count
7.	FootPrint	1.557 kmm2	General	Total Foot Print Area of BOM components
8.	Frequency	100.0 kHz	General	Switching frequency
9.	IC Tolerance	22.0 mV	General	IC Feedback Tolerance
10.	Pout	44.979 W	General	Total output power
11.	Total BOM	\$0.0	General	Total BOM Cost
12.	Vout1 OP	299.857 V	Op_Point	Operational Voltage 1
13.	Duty Cycle	65.549 %	Op_point	Duty cycle
14.	Efficiency	65.377 %	Op_point	Steady state efficiency
15.	IC Tj	78.485 degC	Op_point	IC junction temperature
16.	ICThetaJA	10.625 degC/W	Op_point	IC junction-to-ambient thermal resistance
17.	IOUT_OP	150.0 mA	Op_point	Iout operating point
18.	VIN_OP	24.0 V	Op_point	Vin operating point
19.	Vout1 p-p	1.174 V	Op_point	Peak-to-peak output1 ripple voltage
20.	Cin Pd	59.93 mW	Power	Input capacitor power dissipation
21.	Cout1 Pd	85.092 mW	Power	Output capacitor1 power dissipation
22.	Cout1 Pd	85.092 mW	Power	Output capacitor1 power dissipation
23.	Diode1 Pd	187.5 mW	Power	Diode1 power dissipation
24.	IC Pd	4.563 W	Power	IC power dissipation
25.	Total Pd	23.82 W	Power	Total Power Dissipation
26.	Xformer Pd	3.223 W	Power	Transformer power dissipation
27.	Zener Pd	15.609 W	Power	Zener power dissipation

Design Inputs

#	Name	Value	Description
1.	Iout	150.0 mA	Maximum Output Current
2.	Iout1	150.0 mAmps	Output Current #1
3.	VinMax	24.0 V	Maximum input voltage
4.	VinMin	24.0 V	Minimum input voltage
5.	Vout	300.0 V	Output Voltage
6.	Vout1	300.0 Volt	Output Voltage #1
7.	base_pn	LM2587	Texas Instruments Base Part Number
8.	source	DC	Input Source Type
9.	ta	30.0 degC	Ambient temperature

Design Assistance

1. LM2587 Product Folder : <http://www.ti.com/product/lm2587> : contains the data sheet and other resources.

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