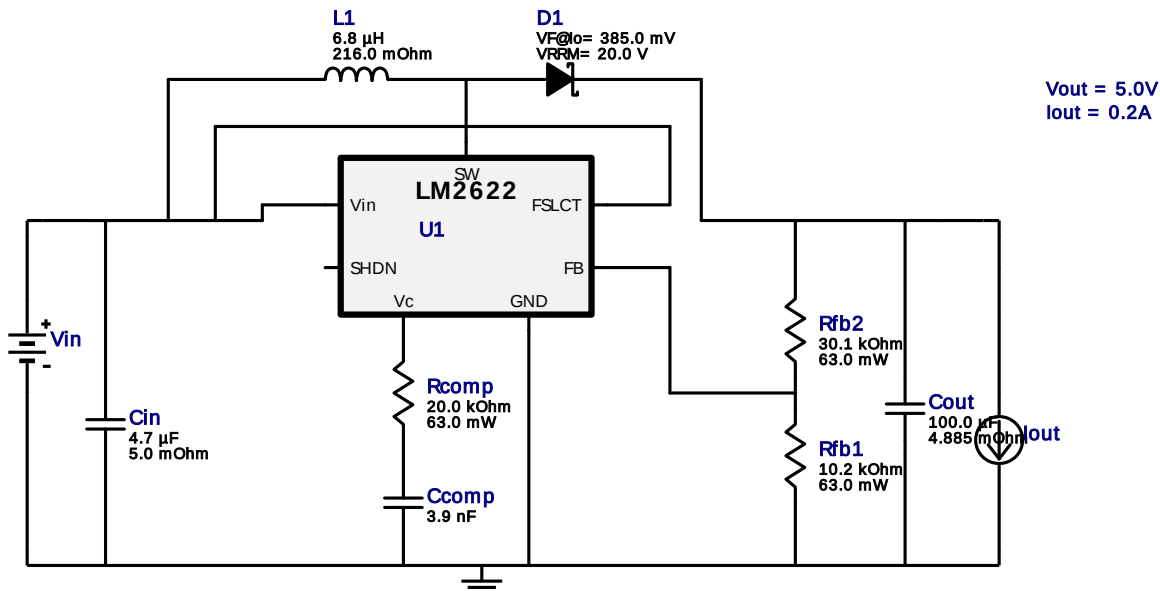


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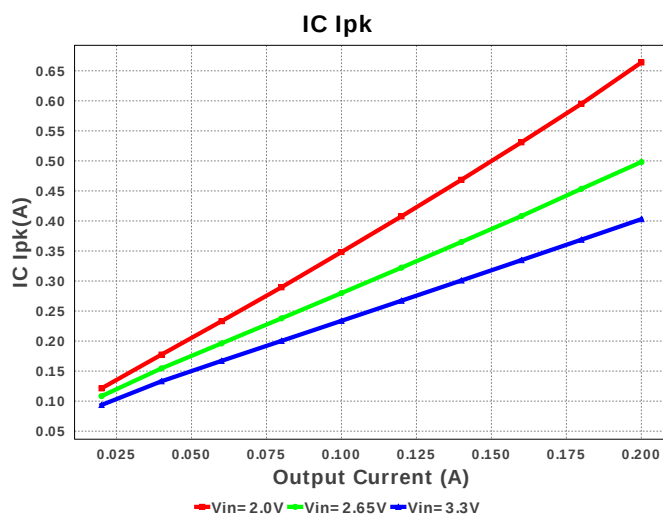
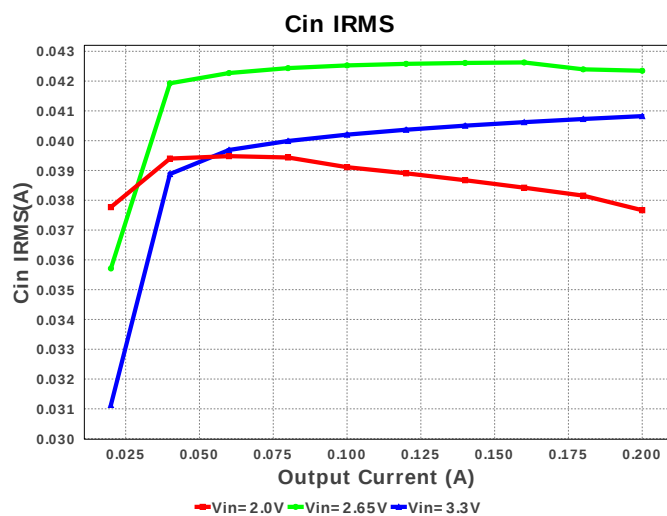
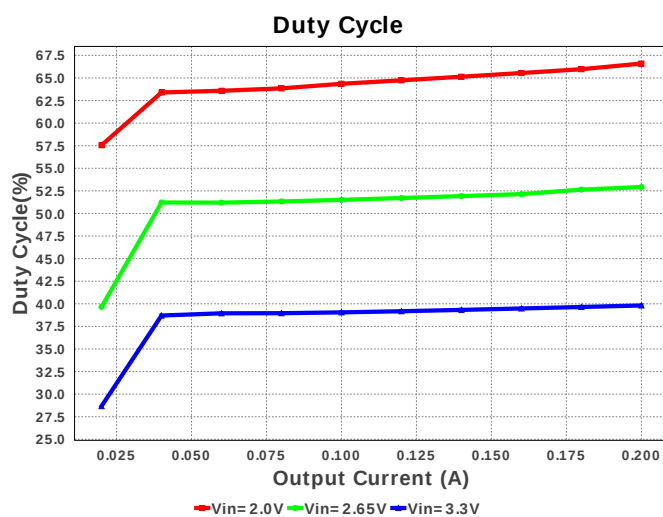
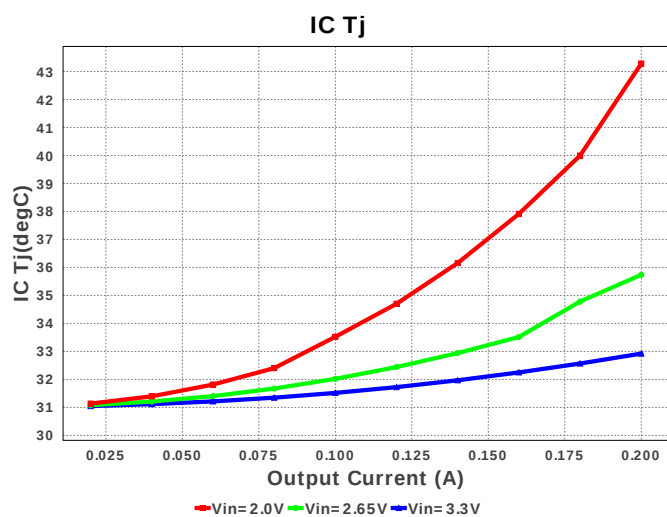
Design : 4551144/150 LM2622MM-ADJ/NOPB
LM2622MM-ADJ/NOPB 2.0V-3.3V to 5.00V @ 0.2A

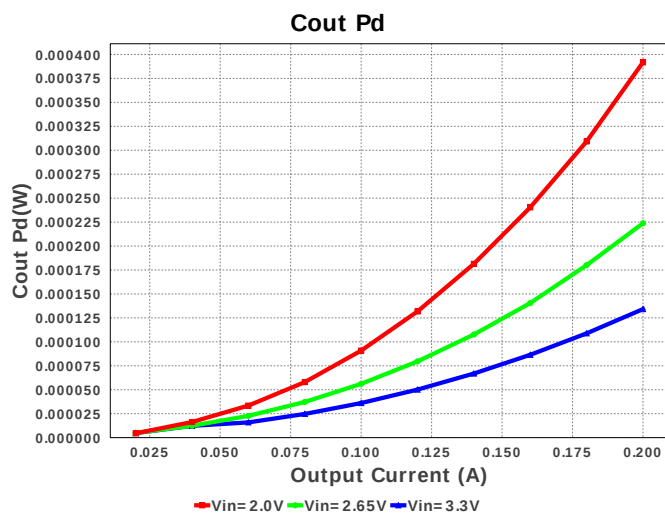
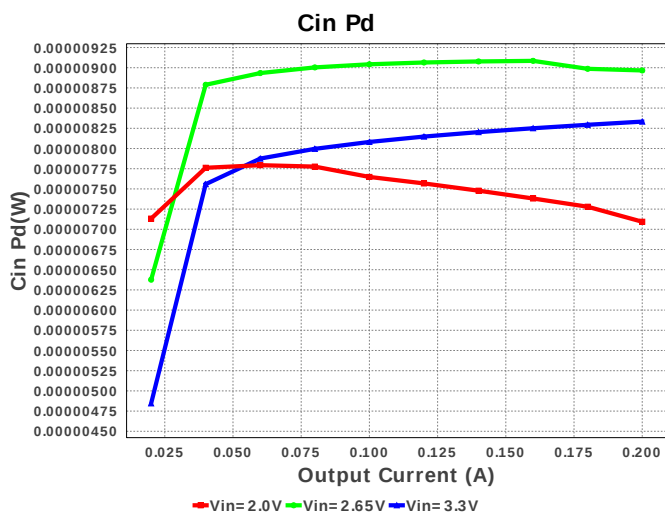
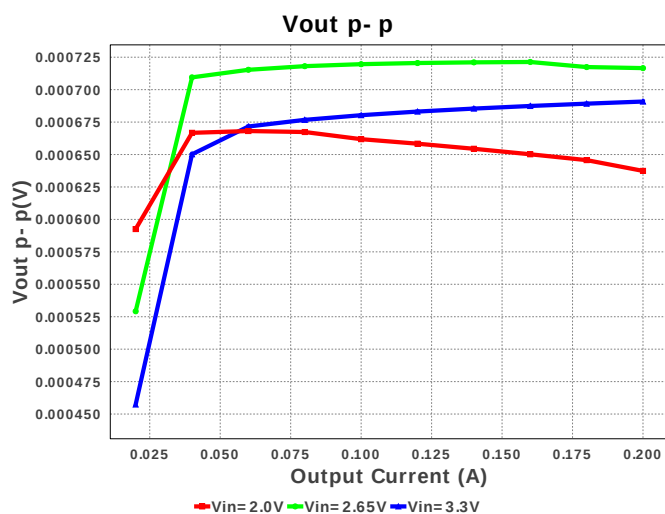
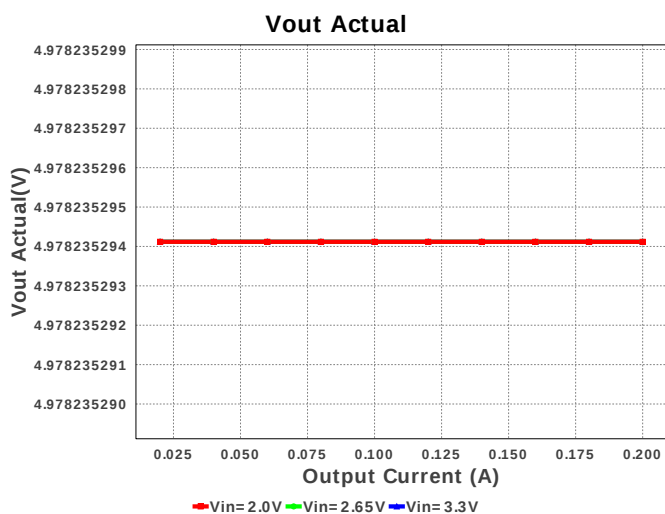
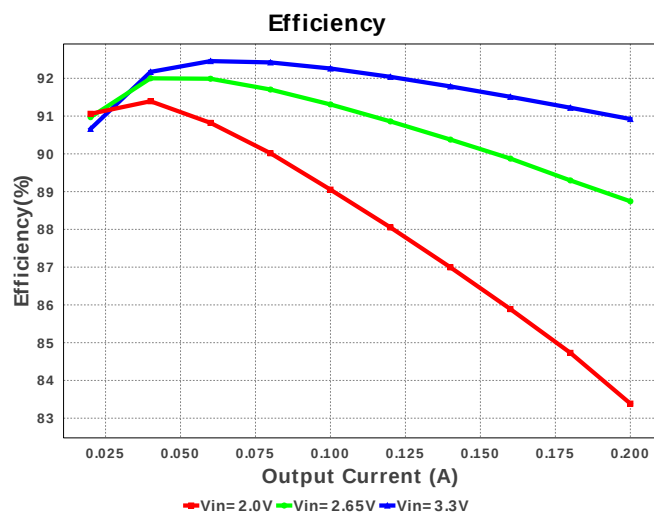
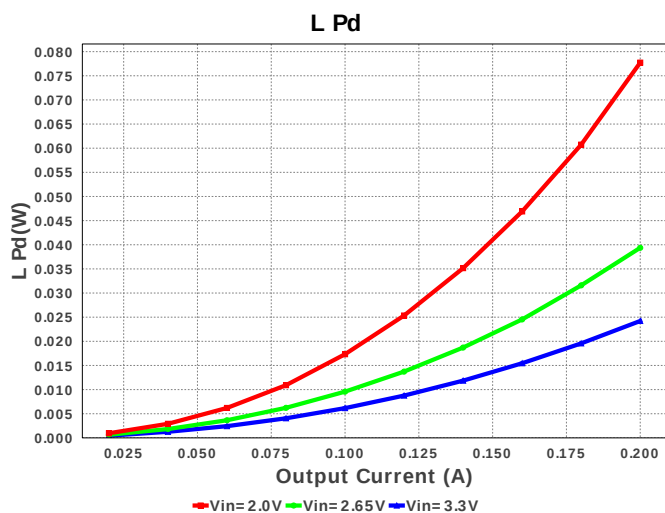


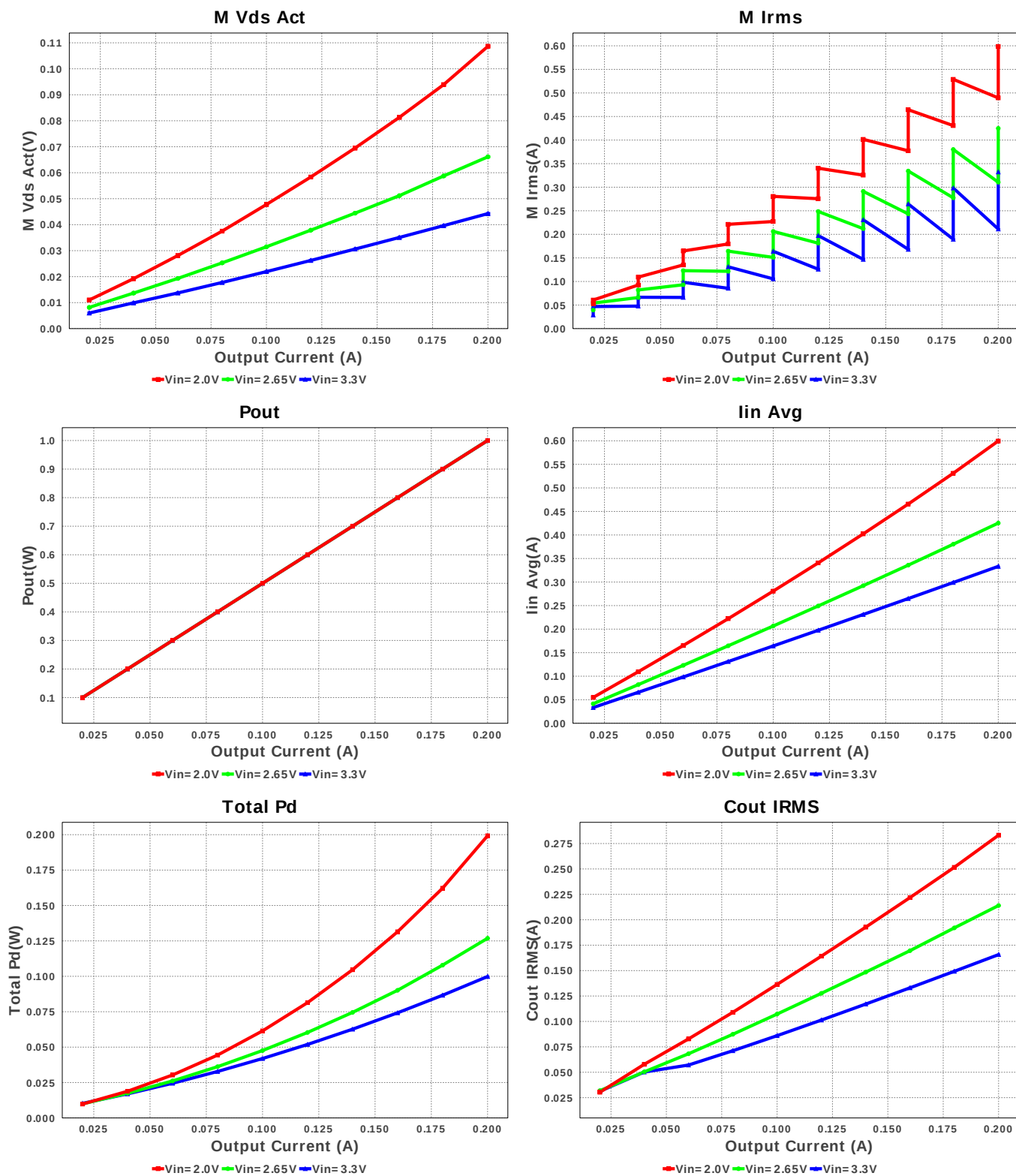
Electrical BOM

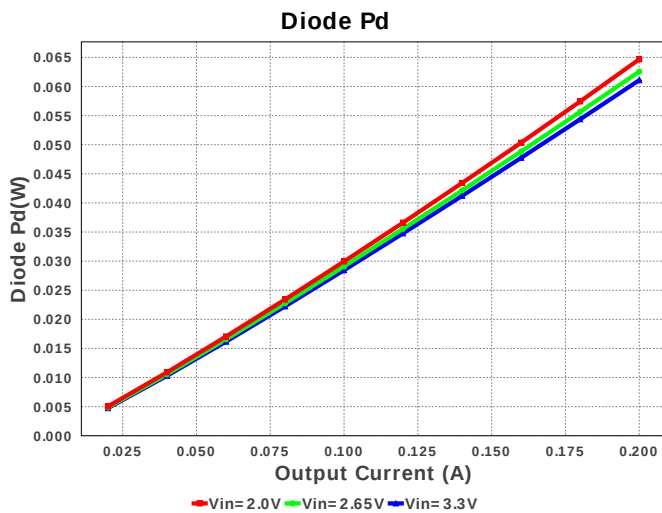
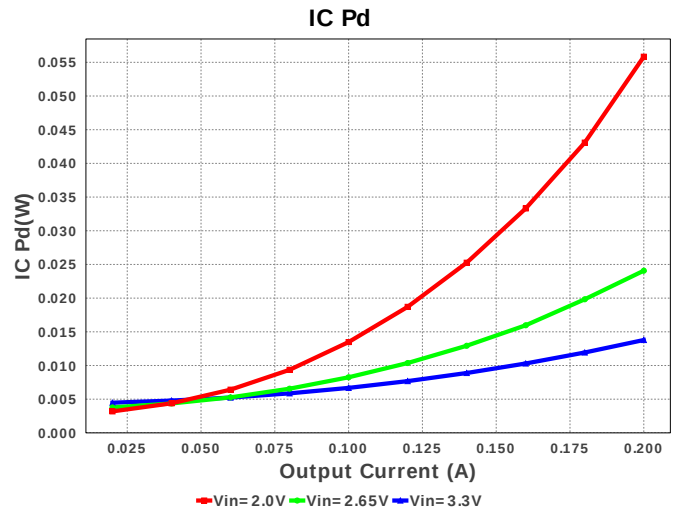
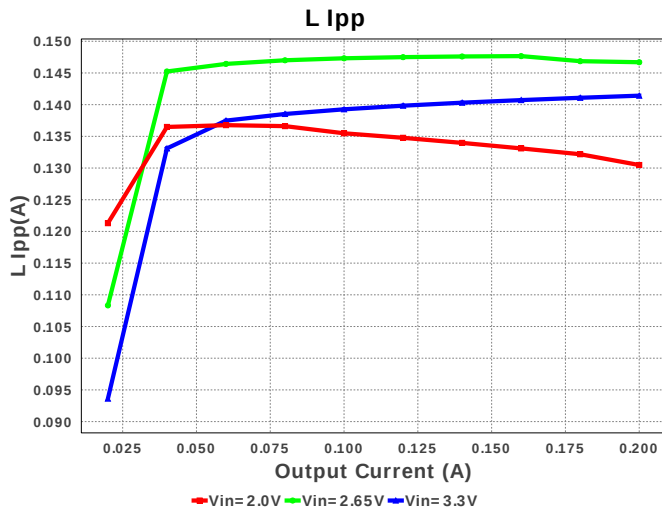
#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
1.	Ccomp	Yageo America	CC0805KRX7R9BB392 Series= X7R	Cap= 3.9 nF VDC= 50.0 V IRMS= 0.0 A	1	\$0.01	 0805 7 mm ²
2.	Cin	MuRata	GRM188R60J475KE19D Series= X5R	Cap= 4.7 uF ESR= 5.0 mOhm VDC= 6.3 V IRMS= 2.0 A	1	\$0.01	 0603 5 mm ²
3.	Cinx	AVX	08053C104KAT2A Series= X7R	Cap= 100.0 nF ESR= 280.0 mOhm VDC= 25.0 V IRMS= 0.0 A	1	\$0.01	 0805 7 mm ²
4.	Cout	MuRata	GRM31CR60J107ME39L Series= X5R	Cap= 100.0 uF ESR= 4.885 mOhm VDC= 6.3 V IRMS= 4.4118 A	1	\$0.14	 1206_190 11 mm ²
5.	D1	ON Semiconductor	MBR0520LT1G	VF@Io= 385.0 mV VRRM= 20.0 V	1	\$0.06	 SOD-123 13 mm ²
6.	L1	TDK	VLS3015ET-6R8M	L= 6.8 µH DCR= 216.0 mOhm	1	\$0.15	 VLS3015ET 17 mm ²
7.	Rcomp	Vishay-Dale	CRCW040220K0FKED Series= CRCW..e3	Res= 20.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3 mm ²
8.	Rfb1	Vishay-Dale	CRCW040210K2FKED Series= CRCW..e3	Res= 10.2 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3 mm ²
9.	Rfb2	Vishay-Dale	CRCW040230K1FKED Series= CRCW..e3	Res= 30.1 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3 mm ²

#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
10.	U1	Texas Instruments	LM2622MM-ADJ/NOPB	Switcher	1	\$0.78	 MUA08A 24 mm ²









Operating Values

#	Name	Value	Category	Description
1.	Cin IRMS	37.598 mA	Current	Input capacitor RMS ripple current
2.	Cout IRMS	282.187 mA	Current	Output capacitor RMS ripple current
3.	IC Ipk	660.897 mA	Current	Peak switch current in IC
4.	Iin Avg	596.68 mA	Current	Average input current
5.	L Ipp	130.24 mA	Current	Peak-to-peak inductor ripple current
6.	M1 Irms	486.551 mA	Current	Q lavg
7.	BOM Count	10	General	Total Design BOM count
8.	FootPrint	92.0 mm ²	General	Total Foot Print Area of BOM components
9.	Frequency	1.3 MHz	General	Switching frequency
10.	IC Tolerance	31.5 mV	General	IC Feedback Tolerance
11.	M Vds Act	107.898 mV	General	
12.	Mode	CCM	General	Conduction Mode
13.	Pout	1.0 W	General	Total output power
14.	Total BOM	\$1.19	General	Total BOM Cost
15.	Vout Actual	4.978 V	Op_Point	Vout Actual calculated based on selected voltage divider resistors
16.	Cross Freq	1.426 kHz	Op_point	Bode plot crossover frequency
17.	Duty Cycle	66.43 %	Op_point	Duty cycle
18.	Efficiency	83.798 %	Op_point	Steady state efficiency
19.	IC Tj	43.134 degC	Op_point	IC junction temperature
20.	ICThetaJA	235.0 degC/W	Op_point	IC junction-to-ambient thermal resistance
21.	IOUT_OP	200.0 mA	Op_point	Iout operating point
22.	Phase Marg	38.017 deg	Op_point	Bode Plot Phase Margin
23.	VIN_OP	2.0 V	Op_point	Vin operating point
24.	Vout p-p	636.241 μV	Op_point	Peak-to-peak output ripple voltage
25.	Cin Pd	7.068 μW	Power	Input capacitor power dissipation
26.	Cout Pd	388.99 μW	Power	Output capacitor power dissipation
27.	Diode Pd	60.211 mW	Power	Diode power dissipation
28.	IC Pd	55.15 mW	Power	IC power dissipation
29.	L Pd	76.974 mW	Power	Inductor power dissipation
30.	Total Pd	193.348 mW	Power	Total Power Dissipation

#	Name	Value	Category	Description
31.	Vout Tolerance	4.047 %		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	3.3	Maximum input voltage
3.	VinMin	2.0	Minimum input voltage
4.	Vout	5.0	Output Voltage
5.	base_pn	LM2622	Base Product Number
6.	source	DC	Input Source Type
7.	Ta	30.0	Ambient temperature

Design Assistance

1. **LM2622** Product Folder : <http://www.ti.com/product/LM2622> : contains the data sheet and other resources.

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