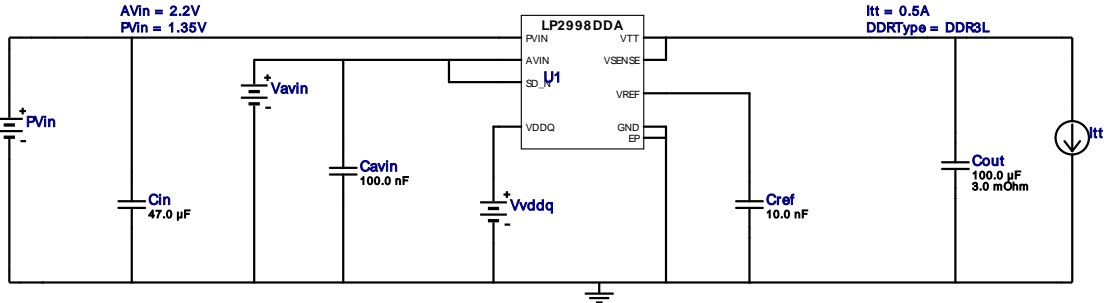
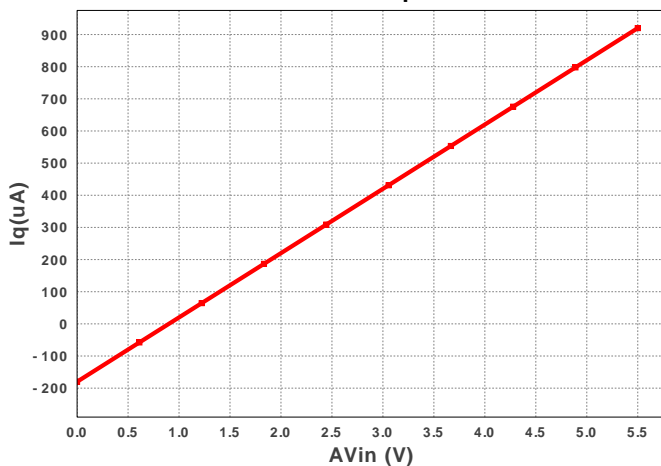
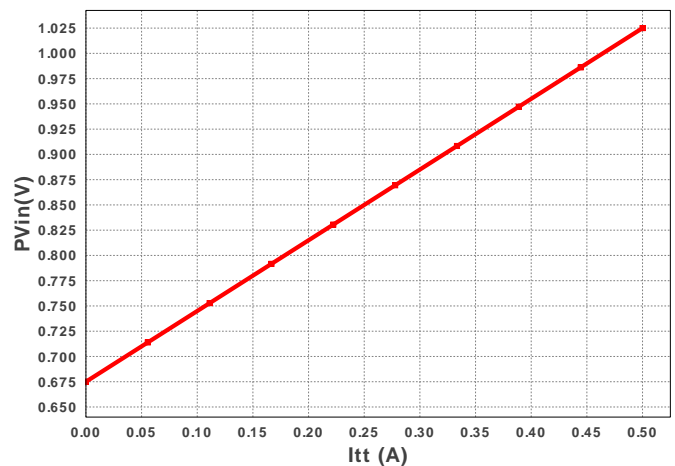
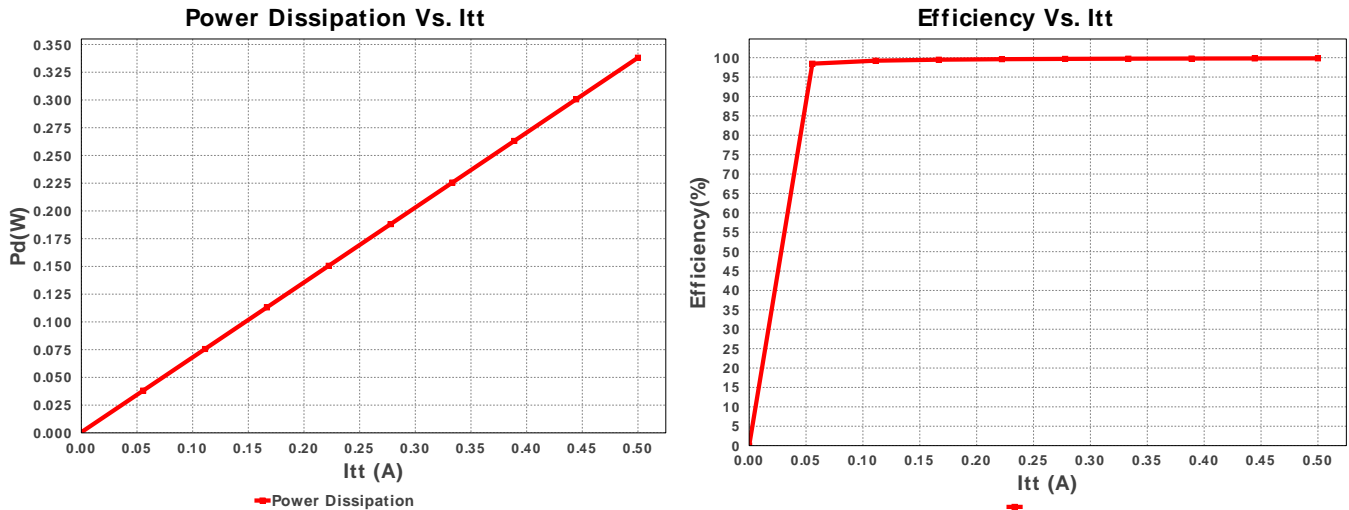


WEBENCH® Design Report

 Design : 1836019/20 LP2998MR/NOPB
 Design 20 - LP2998MR/NOPB

Electrical BOM

#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
1.	Cavin	MuRata	GRM155R60J104KA01D Series= X5R	Cap= 100.0 nF VDC= 6.3 V IRMS= 0.0 A	1	\$0.01	0402 3 mm ²
2.	Cin	Taiyo Yuden	JMK212BJ476MG-T Series= X5R	Cap= 47.0 uF VDC= 6.3 V IRMS= 0.0 A	1	\$0.18	0805 7 mm ²
3.	Cout	MuRata	GRM31CR60J107ME39L Series= X5R	Cap= 100.0 uF ESR= 3.0 mOhm VDC= 6.3 V IRMS= 0.0 A	1	\$0.20	1206 11 mm ²
4.	Cref	MuRata	GRM155R60J103KA01D Series= X5R	Cap= 10.0 nF VDC= 6.3 V IRMS= 0.0 A	1	\$0.01	0402 3 mm ²
5.	U1	Texas Instruments	LP2998MR/NOPB	Switcher	1	\$0.78	DDA0008A 57 mm ²

Quiescent Current I_q Vs. AVin

PVin Vs. I_{tt}




Operating Values

#	Name	Value	Category	Description
1.	BOM Count	5	General	Total Design BOM count
2.	FootPrint	81.0 mm ²	General	Total Foot Print Area of BOM components
3.	Total BOM	\$1.18	General	Total BOM Cost
4.	AVin_OP	2.2 V	Op_Point	Pvin operating point
5.	I _{tt} _OP	500.0 mA	Op_Point	I _{tt} Operating Point
6.	PVin_OP	1.35 V	Op_Point	Pvin operating point
7.	Ta_OP	25.0 degC	Op_Point	Operating Ambient Temperature
8.	Vddq_OP	1.35 V	Op_Point	Vddq operating point
9.	V _{tt} _OP	675.0 mV	Op_Point	V _{tt} operating point
10.	Efficiency	99.825 %	Op_point	Steady state efficiency
11.	IC Tj	39.538 degC	Op_point	IC junction temperature
12.	ICThetaJA	43.0 degC/W	Op_point	IC junction-to-ambient thermal resistance
13.	Total Pd	338.09 mW	Power	Total Power Dissipation

Design Inputs

#	Name	Value	Description
1.	AVin	2.2 A	AVin
2.	DDRTYPE	DDR3L	DDRTYPE
3.	I _{tt}	500.0 mA	I _{tt}
4.	PVin	1.35 A	PVin
5.	application	DDRPower	application
6.	base_pn	LP2998	Base Product Number
7.	Ta	25.0 A	Ambient temperature

Design Assistance

1. **LP2998** Product Folder : <http://www.ti.com/product/lp2998> : contains the data sheet and other resources.

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You should completely validate and test your design implementation to confirm the system functionality for your application prior to production.

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