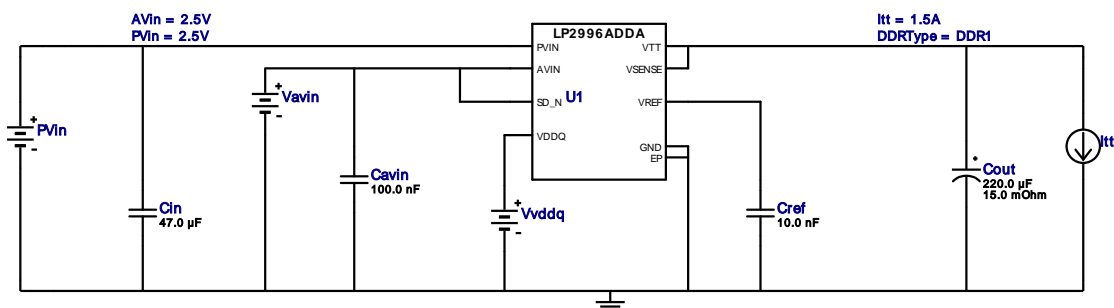




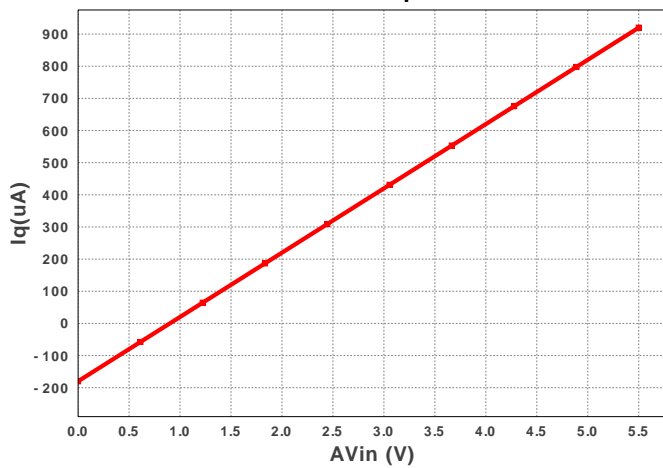
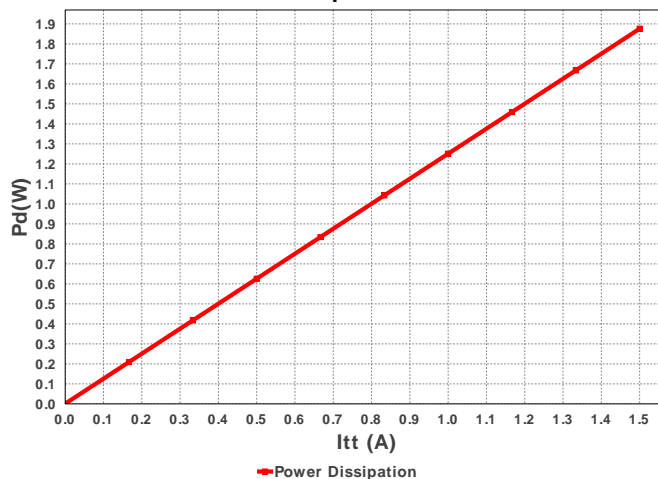
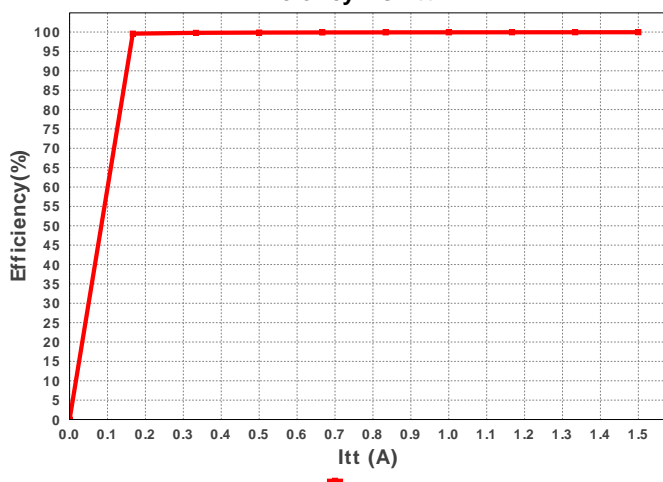
DDRType = DDR1
 PVin = 2.5V
 AVin = 2.5V
 Itt = 1.5A
 Ta = 25.0degC
 VDDQ = 2.5V
 VTT = 1.25V

 Device = LP2996AMRE/NOPB
 Topology = DDRLDO
 Created = 9/17/16 10:41:33 PM
 BOM Cost = \$1.35
 BOM Count = 5
 Total Pd = 1.88W


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	\$0.14	 0805 7 mm ²
3.	Cout	Panasonic	2R5TPE220MAFB Series= ?	Cap= 220.0 uF ESR= 15.0 mOhm VDC= 2.5 V IRMS= 2.0 A	1	\$0.50	 CAPSMT_6_B2S 17 mm ²
4.	Cref	MuRata	GRM155R61A103KA01D Series= X5R	Cap= 10.0 nF VDC= 10.0 V IRMS= 0.0 A	1	\$0.01	 0402 3 mm ²
5.	U1	Texas Instruments	LP2996AMRE/NOPB	Switcher	1	\$0.69	 DDA0008A 57 mm ²

Quiescent Current Iq Vs. AVin

Power Dissipation Vs. I_{tt}Efficiency Vs. I_{tt}

Operating Values

#	Name	Value	Category	Description
1.	BOM Count	5		Total Design BOM count
2.	Total BOM	\$1.35		Total BOM Cost
3.	DDR Type	DDR1	DDR Memory	DDR Memory Type
4.	FootPrint	87.0 mm ²	App Type	Total Foot Print Area of BOM components
5.	AVin_OP	2.5 V	Op_Point	Pvin operating point
6.	I _{tt} _OP	1.5 A	Op_Point	I _{tt} Operating Point
7.	PVin_OP	2.5 V	Op_Point	Pvin operating point
8.	Ta_OP	25.0 degC	Op_Point	Operating Ambient Temperature
9.	Vddq_OP	2.5 V	Op_Point	Vddq operating point
10.	V _{tt} _OP	1.25 V	Op_Point	V _{tt} operating point
11.	Efficiency	99.954 %	Op_point	Steady state efficiency
12.	IC Tj	105.662 degC	Op_point	IC junction temperature
13.	ICThetaJA	43.0 degC/W	Op_point	IC junction-to-ambient thermal resistance
14.	Total Pd	1.876 W	Power	Total Power Dissipation

Design Inputs

#	Name	Value	Description
1.	AVin	2.5 A	AVin
2.	DDRTYPE	DDR1	DDRTYPE
3.	I _{tt}	1.5 A	I _{tt}
4.	PVin	2.5 A	PVin
5.	application	DDRPower	application
6.	base_pn	LP2996A	Texas Instruments Base Part Number
7.	ta	25.0 A	Ambient temperature

Design Assistance

1. LP2996A Product Folder : <http://www.ti.com/product/lp2996a> : 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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