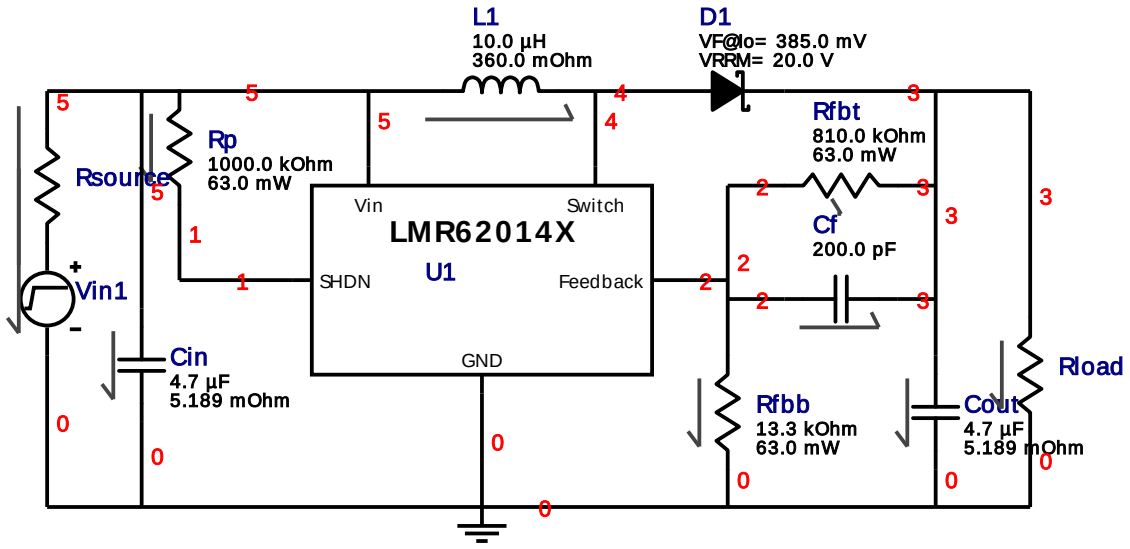
WEBENCH® Electrical Simulation Report

VinMin = 12.0V
VinMax = 12.0V
Vout = 14.0V
Iout = 0.12A

Device = LMR62014XMF/NOPB
Topology = Boost
Created = Thu Jan 7 14:37:11 GMT +0530 2016
User ID = 4430889
Design Id = 2
eSim Id = 5
Simulation Type = Startup



Electrical BOM

#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
1.	Cf	Samsung Electro-Mechanics	CL21C201JBANNNC Series= C0G/NP0	Cap= 200.0 pF VDC= 50.0 V IRMS= 0.0 A	1	$0.01	0805 7 mm²
2.	Cin	MuRata	GRM21BR61E475KA12L Series= X5R	Cap= 4.7 µF ESR= 5.189 mOhm VDC= 25.0 V IRMS= 2.035 A	1	$0.03	0805 7 mm²
3.	Cout	MuRata	GRM21BR61E475KA12L Series= X5R	Cap= 4.7 µF ESR= 5.189 mOhm VDC= 25.0 V IRMS= 2.035 A	1	$0.03	0805 7 mm²
4.	D1	ON Semiconductor	MBR0520LT1G	VF@Io= 385.0 mV VRRM= 20.0 V	1	$0.06	SOD-123 13 mm²
5.	L1	Taiyo Yuden	CBC2518T100M	L= 10.0 µH DCR= 360.0 mOhm	1	$0.06	CBC2518 10 mm²
6.	Rfbb	Vishay-Dale	CRCW040213K3FKED Series= CRCW..e3	Res= 13.3 kOhm Power= 63.0 mW Tolerance= 1.0%	1	$0.01	0402 3 mm²
7.	Rfbt	CUSTOM	CUSTOM_RESISTOR_MD Series= CUSTOM	Res= 810.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	$0.10	0805 1 mm²
8.	Rp	Vishay-Dale	CRCW04021M00FKED Series= CRCW..e3	Res= 1000.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	$0.01	0402 3 mm²
9.	U1	Texas Instruments	LMR62014XMF/NOPB	Switcher	1	$0.55	DBV0005A 15 mm²

Simulation Parameters

#	Name	Parameter Name	Description	Values
1.	Rsource	R	Source Resistance	1m Ohm
2.	Vin1	signal_type	Signal Type	PULSE
		V1	Initial Input Voltage	0 V
		V2	Peak Input Voltage	12.0 V
		Td	Initial Time Delay	1u s
		Tr	Rise time	50u
3.	Rload	R	Load Resistance	116.66666666666667

Design Inputs

#	Name	Value	Description
1.	Iout	120.0 mA	Maximum Output Current
2.	VinMax	12.0 V	Maximum input voltage
3.	VinMin	12.0 V	Minimum input voltage
4.	Vout	14.0 V	Output Voltage
5.	base_pn	LMR62014X	Base Product Number
6.	source	DC	Input Source Type
7.	Ta	30.0 degC	Ambient temperature

Operating Values

#	Name	Value	Category	Description
1.	BOM Count	9	General	Total Design BOM count
2.	FootPrint	64.965 mm^2	General	Total Foot Print Area of BOM components
3.	Total BOM	$0.86	General	Total BOM Cost

Design Assistance

1. Modified : Thu Jan 7 14:37:11 GMT+0530 2016
2. Modified : Thu Jan 7 14:37:34 GMT+0530 2016
3. Modified : Thu Jan 7 14:38:01 GMT+0530 2016
4. Modified : Thu Jan 7 14:40:46 GMT+0530 2016
5. **LMR62014X** Product Folder : http://www.ti.com/product/LMR62014 : contains the data sheet and other resources.