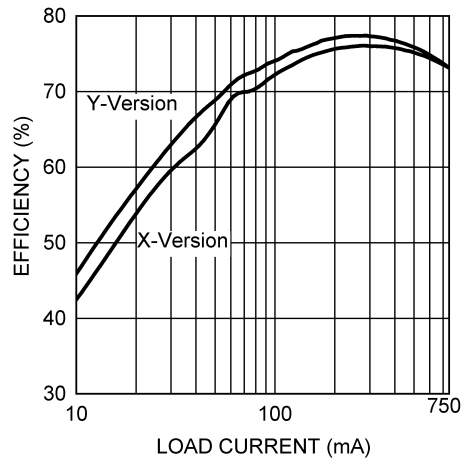


Operating Conditions (Continued)



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Efficiency vs Load Current

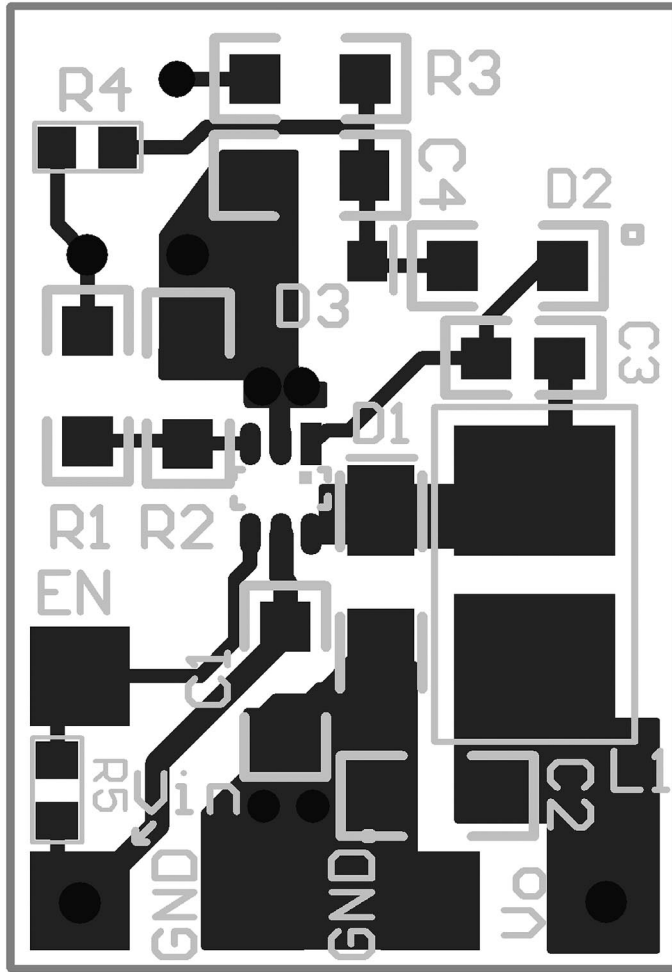
Bill of Materials X-Version

Part ID	Part Value	Manufacturer	Part Number	Package Type
C1, Input Cap	4.7 μ F, 10V, X5R	Murata	GRM42-6X5R475K10	1206
C2, Output Cap	10 μ F, 6.3V, X5R	Murata	GRM42-6X5R106K6.3	1206
C3, Boost Cap	0.01 μ F	Vishay	VJ1206Y103KXXA	1206
D2, Boost Diode	1V _f @ 50 mA Diode	Diodes, Inc.	1N4148W	SOD-123
R2	10 k Ω , 1%	Vishay	CRCW12061002F	1206
U1	750 mA Buck Regulator	National Semiconductor	LM2736X	Thin SOT23-6
D1, Catch Diode	0.34V _f Schottky 1A, 20V _R	International Rectifier	MBRA120	SMA
L1	4.7 μ H, 1.6A, 28 m Ω	TDK	SLF6028T-4R7M1R6	6028
R1	2 k Ω , 1%	Vishay	CRCW12062001F	1206
R3	0 Ω	Vishay	CRCW12060000F	1206
R5	50 k Ω , 1%	Vishay	CRCW08055002F	0805
D3, C4, R4	Open			

Bill of Materials Y-Version

Part ID	Part Value	Manufacturer	Part Number	Package Type
C1, Input Cap	10 μ F, 10V, X5R	Murata	GRM42-6X5R106K10	1206
C2, Output Cap	10 μ F, 6.3V, X5R	Murata	GRM42-6X5R106K6.3	1206
C3, Boost Cap	0.01 μ F	Vishay	VJ1206Y103KXXA	1206
D2, Boost Diode	1V _f @ 50 mA Diode	Diodes, Inc.	1N4148W	SOD-123
R2	10 k Ω , 1%	Vishay	CRCW12061002F	1206
U1	750 mA Buck Regulator	National Semiconductor	LM2736Y	Thin SOT23-6
D1, Catch Diode	0.34V _f Schottky 1A, 20V _R	International Rectifier	MBRA120	SMA
L1	10 μ H, 1.3A, 53 m Ω	TDK	SLF6028T-100M1R3	6028
R1	2 k Ω , 1%	Vishay	CRCW12062001F	1206
R3	0 Ω	Vishay	CRCW12060000F	1206
R5	50 k Ω , 1%	Vishay	CRCW08055002F	0805
D3, C4, R4	Open			

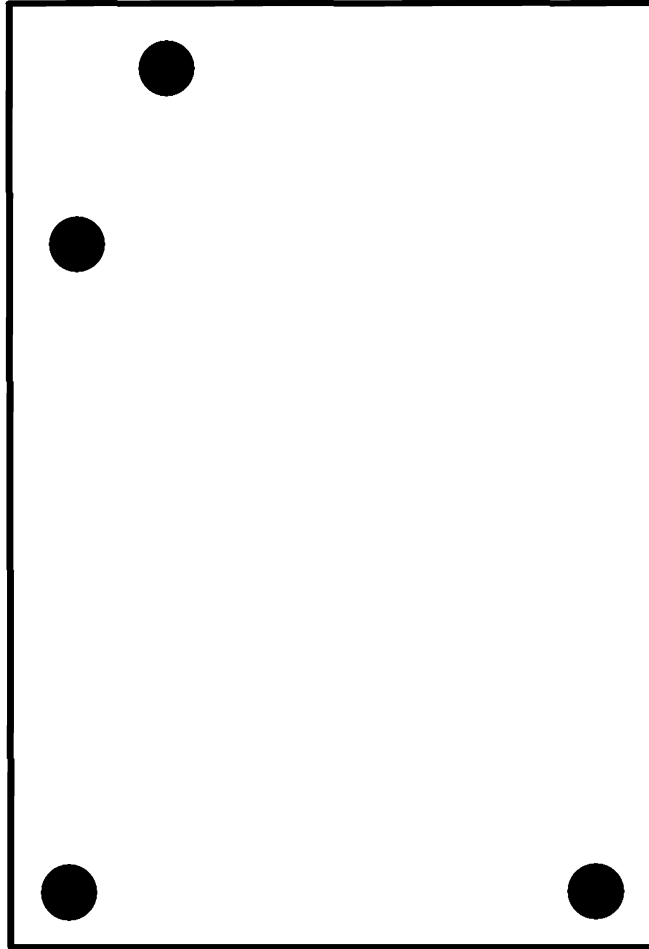
PCB Layout



20170903

Top Layer

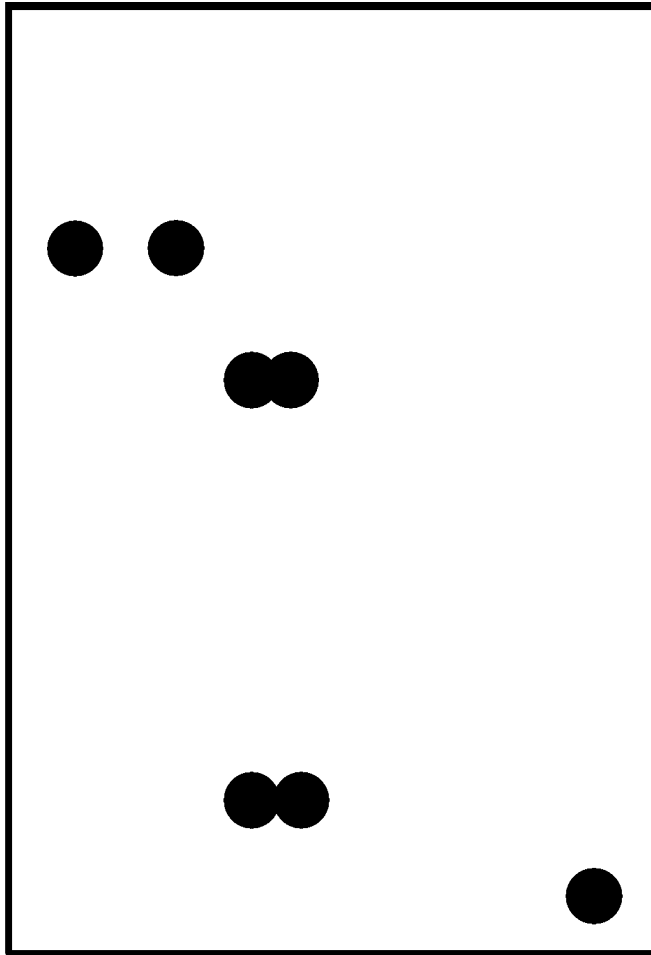
PCB Layout (Continued)



Internal Plane 1 (GND)

20170904

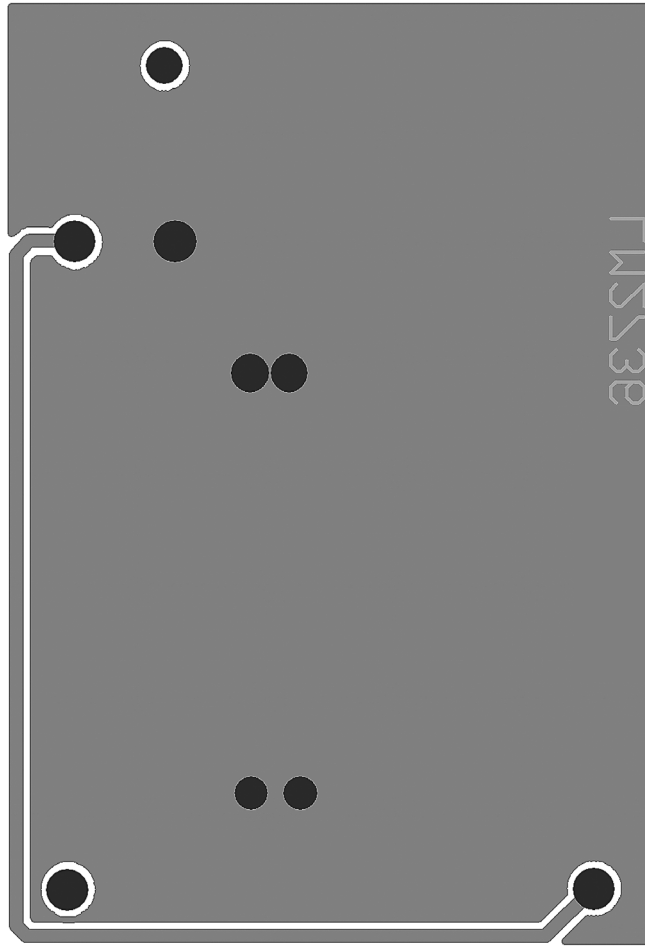
PCB Layout (Continued)



20170905

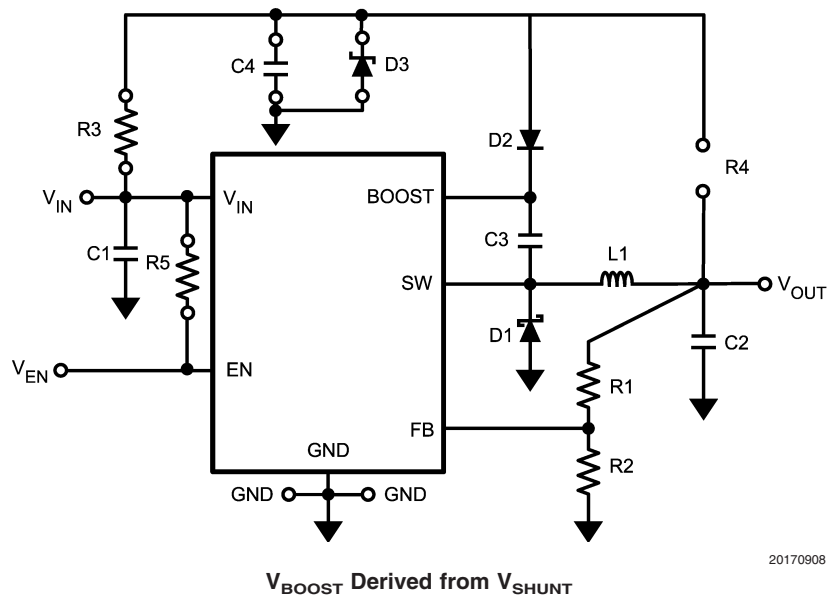
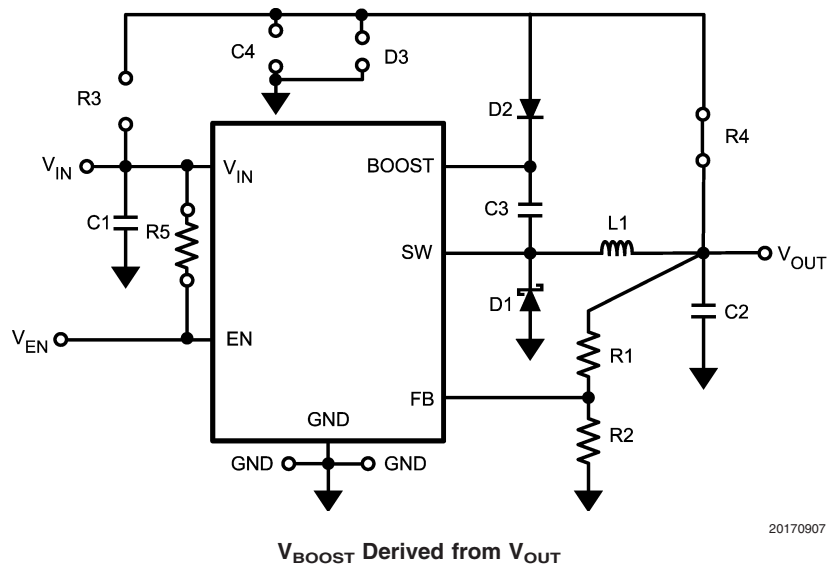
Internal Plane 2 (V_{IN})

PCB Layout (Continued)

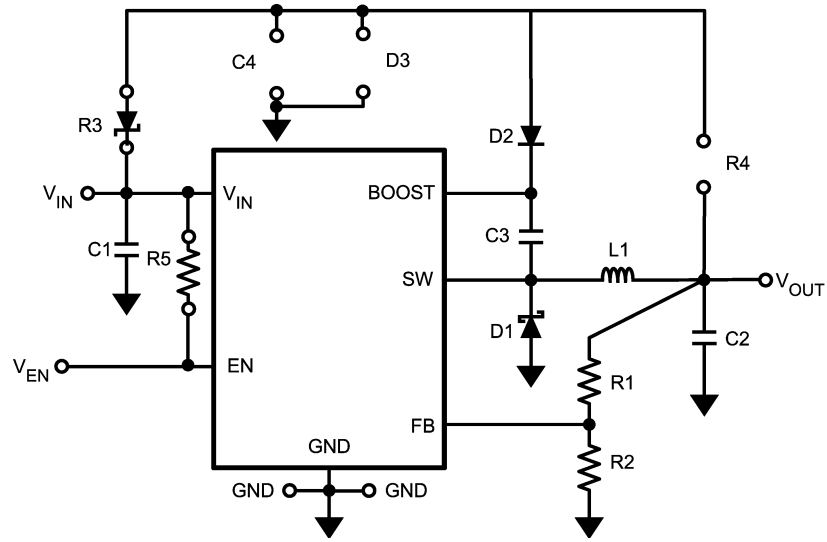


Bottom Layer

Additional Circuit Configuration Schematics

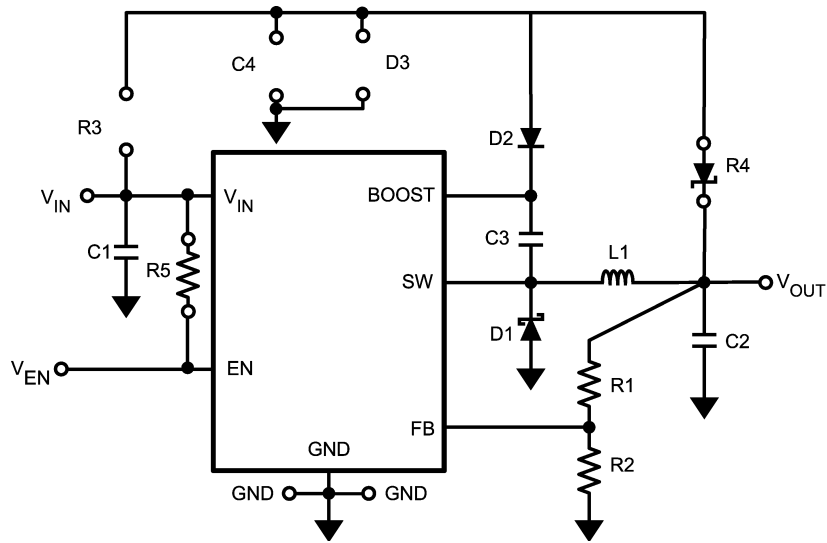


Additional Circuit Configuration Schematics (Continued)



20170909

V_{BOOST} Derived from Series Zener Diode (V_{IN})



20170910

V_{BOOST} Derived from Series Zener Diode (V_{OUT})

Notes

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