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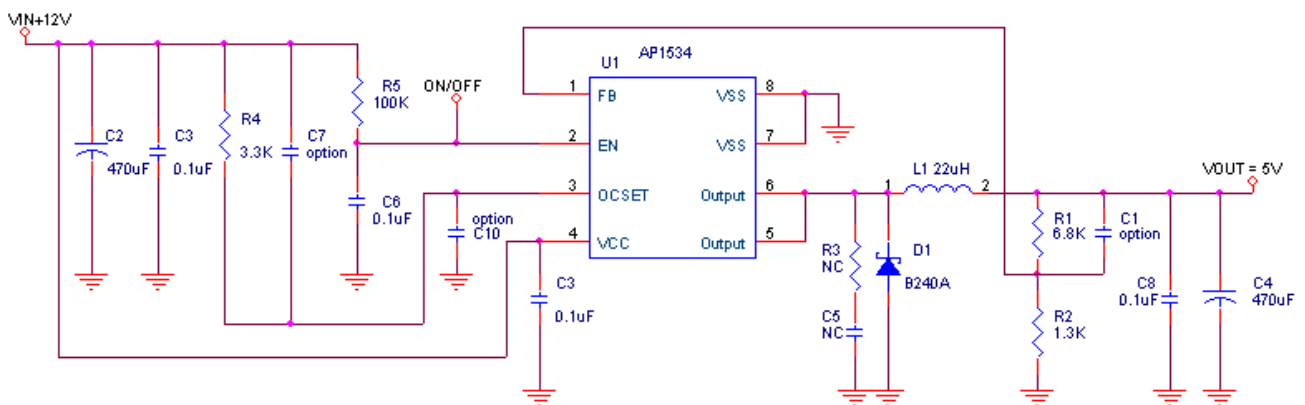
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Application Note
AP1534 Application Information and Demo Board User Guide

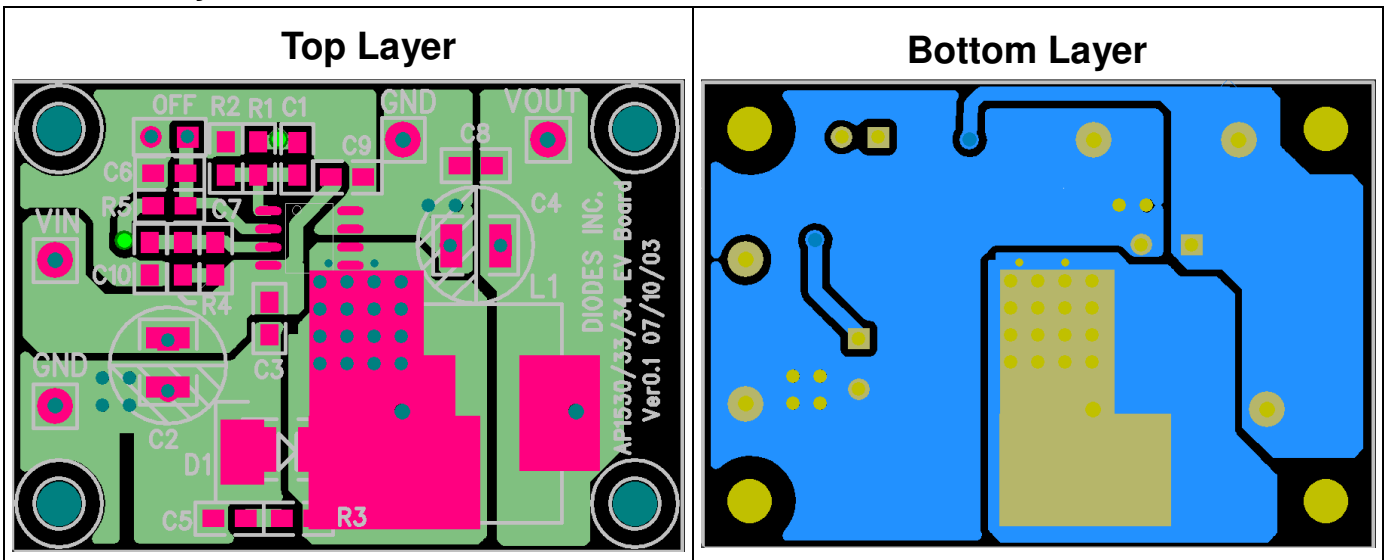
1. Description

AP1534 is step-down switching regulator with PWM control. AP1534 provides low-ripple power, high efficiency, and excellent transient characteristics.

2. EVM Schematic



3. Board Layout



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Application Note

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4. Bill of Materials

Component Location	Q'ty	Value	Source	Part No.	Size
C2, C4	1	Aluminum Cap 470uF/16V	TEAPO		CAP8/3.5mm
C3,C6, C8	3	Cap MLCC 0.1uF/50V/X5R	TAIYO YUDEN	UMK212BJ104KG-T	C0805
C1, C5, C7, C9, C10	0	NC	-		C0805
R1	1	6.8kΩ, 1%	YAGEO	RC0805FR-SK	R0805
R2	1	1.3kΩ, 1%	YAGEO	RC0805FR-SK	R0805
R3	0	NC	-	-	-
R4	1	5.6kΩ, 1%	YAGEO	RC0805FR-SK	R0805
R5	1	100kΩ, 1%	YAGEO	RC0805FR-SK	R0805
U1	1	2A, PWM	Diodes Inc.	AP1534	SOP-8L
L1	1	22uH/3A	Würth Electronics	7447 series	12*12*4.5mm
D1	1	2A/40V	Diodes Inc.	B240A	SMA
VIN, VOUT, GND	4	Header_1	-	-	2.2mmX 1.35mm
PCB	1	AP1530/33/34EV Board Ver0.1	Diodes Inc.	TDB0009	1860milX 1300mil

The recommended minimum R_{OCSET} value is summarized below :

$V_{IN}(V)$	$V_{OUT}(V)$	$R_{OCSET}(\Omega)$
5	3.3	5.6k
12	5	3.9k
18	12	4.7k

5. Vendors of peripheral components

Suggested Capacitors for C2 and C4 :

Vendor	Capacitance	Type	Series
TEAPO	Aluminum Cap 470uF/16V	DIP	

Suggested Capacitors for C3 - C6 and C8 :

Vendor	Capacitance	Type	Series
TAIYO YUDEN	Cap MLCC 0.1uF/50V/X5R	SMD	UMK212BJ104KG-T

Suggested Resistor :

Vendor	Type	Series
YAGEO	SMD	RC0805FR-SK