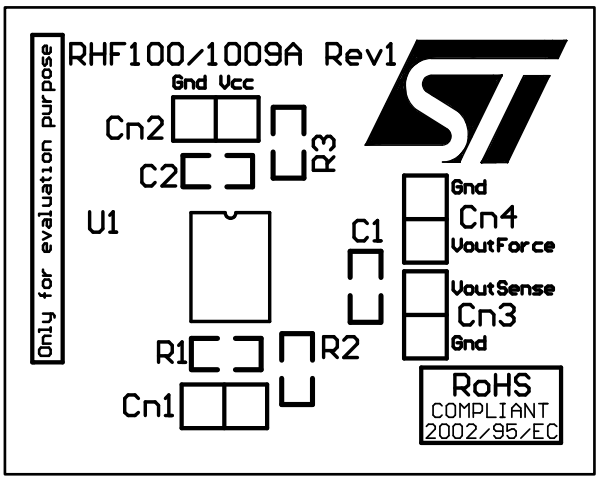
EVAL-RHF1009A

EVAL-RHF1009A product evaluation board

Data brief



Features

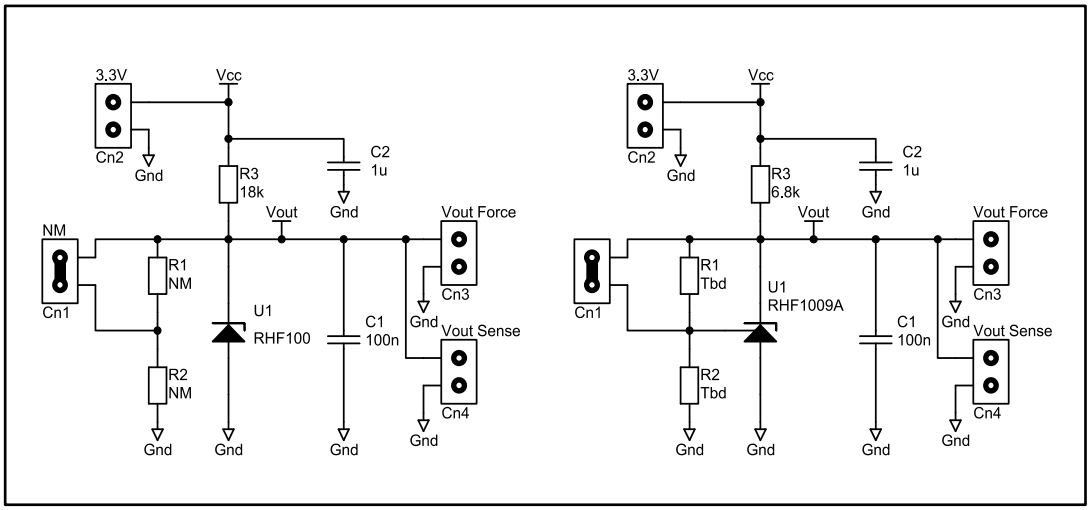
- Designed for Flat-10 package
- Used to perform on-board characterization of the RHF1009A prior to integration of STMicroelectronics' products
- Resistor and capacitor footprints implemented for 0805 series
- Two decoupling capacitors implemented on power supply pin and output pin to benefit from maximum performance of ST products
- R3 (cathode) resistor set to 6.8 kΩ, with a power supply voltage of 3.3 V this gives a cathode current of about 110 µA
- If RHF1009A device is soldered onto the EVAL-RHF1009A, Cn1 is fitted onto the PCB and shorted to get an output voltage of 2.5 V. If a different output voltage than 2.5 V to 5.5 V is needed, remove the jumper located on Cn1 and place the adequate value of R1, R2, and R3

Description

The EVAL-RHF1009A product evaluation board of STMicroelectronics is designed to help characterize the RHF1009A device. This rad-hard device is a low-power adjustable 2.5 V to 5.5 V, ± 0.15 % fixed shunt, voltage reference with a typical average temperature co-efficient of 10 ppm/ºC and is housed in a Flat-10 ceramic package. This data brief provides a brief description of the EVAL-RHF1009A product evaluation board and presents the EVAL-RHF1009A schematic together with the top and bottom layers of the board.

1 EVAL-RHF1009A product evaluation board schematic

Figure 1: EVAL-RHF1009A product evaluation board schematic



2 EVAL-RHF1009A product evaluation board layers

Figure 2: EVAL-RHF1009A product evaluation board top layer

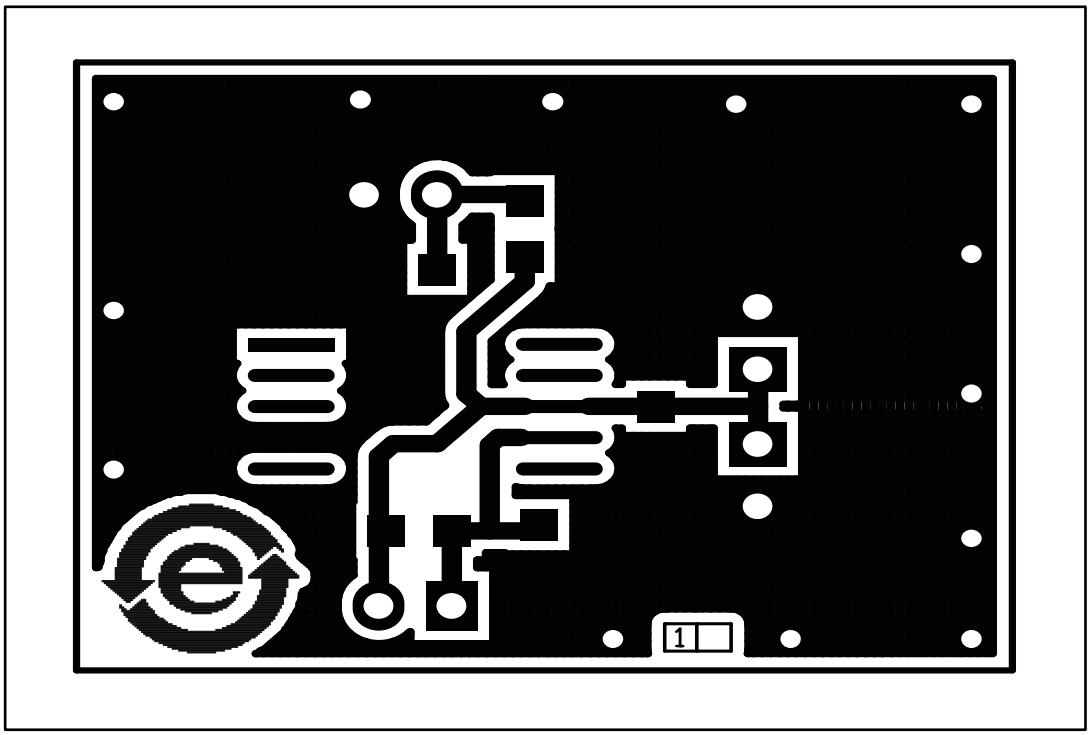
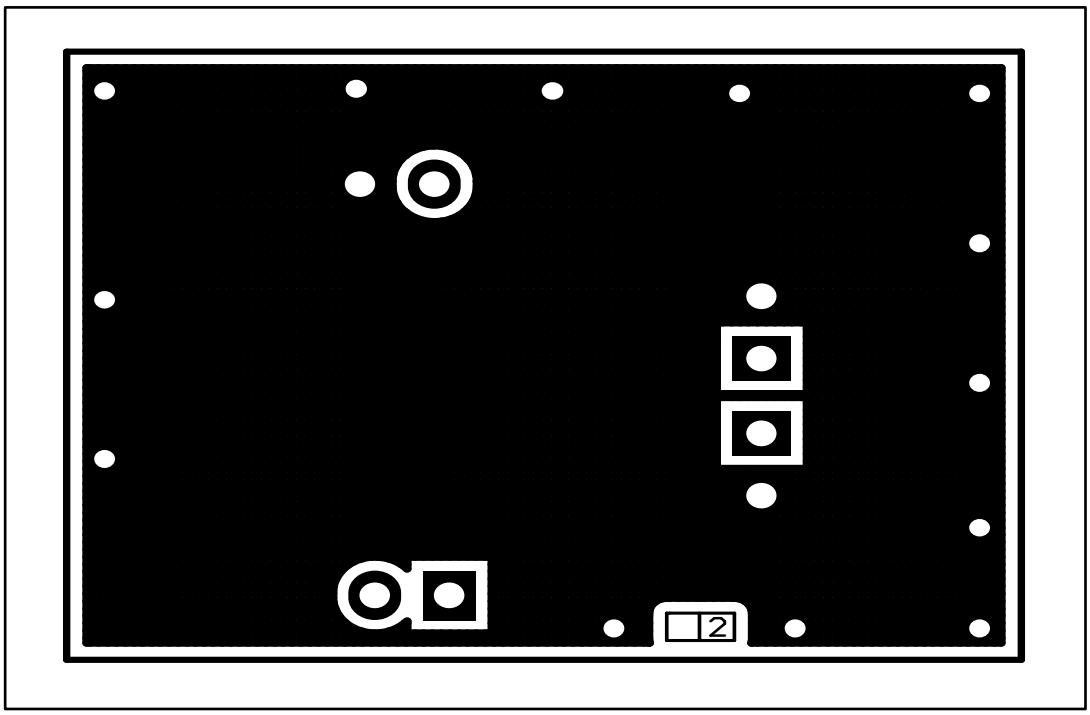


Figure 3: EVAL-RHF1009A product evaluation board bottom layer



3 EVAL-RHF1009A bill of material

Table 1: EVAL-RHF1009A bill of material

Value	Description	Designator	Footprint	Qty	Mounted
1 uF	Capacitor X5R/16 V	C1	0805	1	Yes
100 nF	Capacitor X7R/50 V	C2	0805	1	Yes
Header 2	Header, 2-pin pitch 2.54 mm	Cn1	SIP2	1	Yes
Header 2	Header, 2-pin pitch 2.54 mm	Cn2	SIP2	1	Yes
Header 2	Header, 2-pin pitch 2.54 mm	Cn3	SIP2	1	Yes
Header 2	Header, 2-pin pitch 2.54 mm	Cn4	SIP2	1	Yes
Jumper 2	Jumper 2-pin pitch 2.54 mm	J1	NA	1	Yes
TBD	Resistor	R1	0805	1	No
TBD	Resistor	R2	0805	0	No
6.8 kΩ	Resistor	R3	0805	0	Yes
RHF1009A	2.5 V adjustable rad-hard Vref.	U1	Flat 10	1	Yes

4 Revision history

Table 2: Document revision history

Date	Revision	Changes
10-Apr-2014	1	Initial release

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