

Current Sense Amplifier

BD1423xFVJ-EVK-001 (x:0,1,2)

BD1423xFVJ-EVK-001 is an evaluation board for BD1423xFVJ-C, which is ROHM's current sense amplifier.

This user's guide explains BD1423xFVJ-EVK-001.

About BD1423xFVJ-C (x:0,1,2)

BD1423xFVJ-C is a current sense amplifier. BD1423xFVJ-C has wide common mode voltage range from -14V to 80V. It measures voltage drops across shunt resistor and outputs analog voltage. Gain is 20 V/V, 50 V/V, 100V/V. The BD1423xFVJ-C key features are:

- Wide Common Mode Voltage Range
- High Accuracy
- Low Offset Voltage
- Low Input Bias Current

For more detailed information about the BD1423xFVJ-C, refer to the datasheet.

About BD1423xFVJ-EVK-001

1. Board Information

- Size : 74mm x 44mm x 1.6mm
- Number of Layers : 2
- Material : FR-4 (~125°C)
- Copper Thickness : 2oz (70μm)

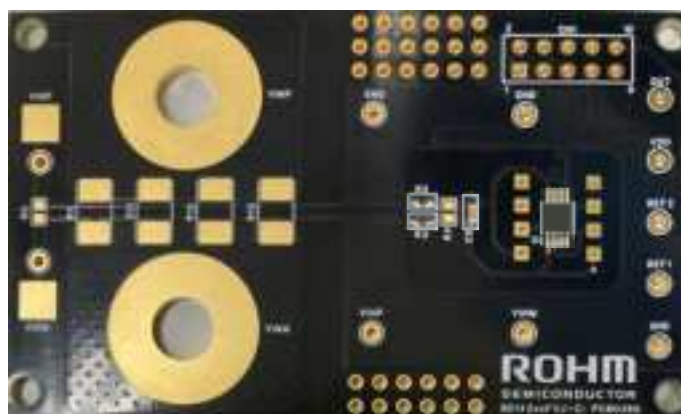


Figure 1. Pictures of BD1423xFVJ-EVK-001

2. Schematic Diagram

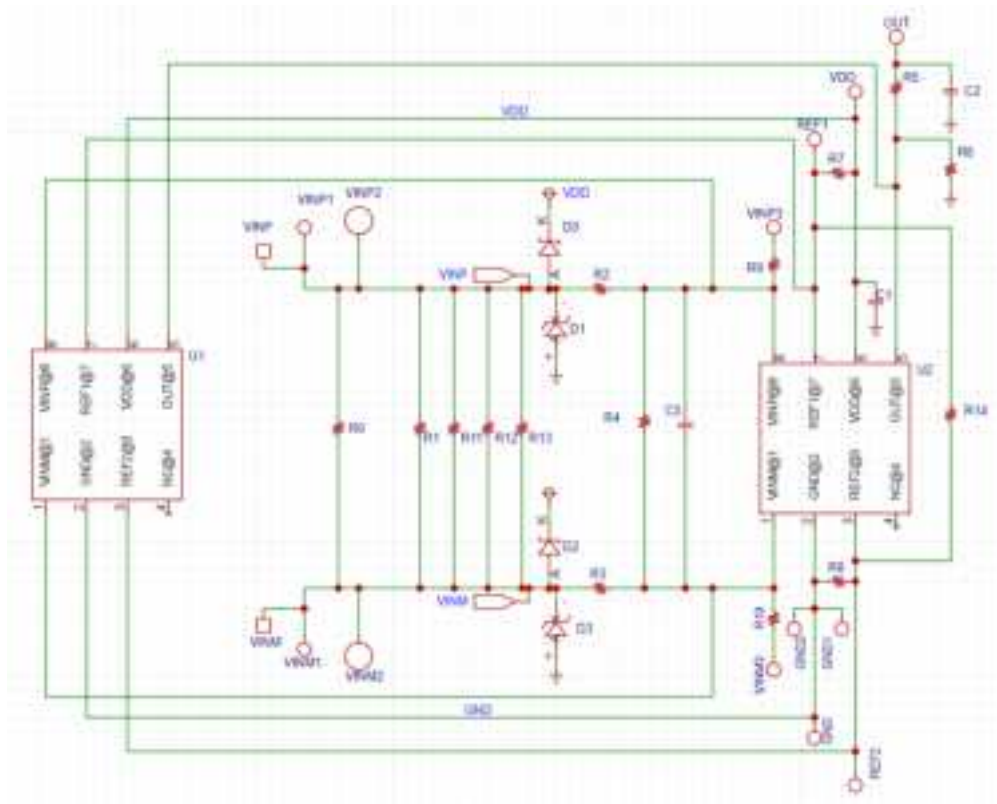


Figure 2. Schematic Diagram of BD1423xFVJ-EVK-001

3. Bill of Materials

Table 1. Bill of Materials of BD1423xFVJ-EVK-001

Part	Part Type	Manufacturer	Value	Size/Package	Description
U2	BD1423xFVJ-C X:0,1,2	ROHM Co., Ltd.	-	TSSOP-B8J	Current Sense Amplifier
C0	GRM033R71A103KA01D	Murata Manufacturing Co., Ltd.	0.01uF	1608(0603)	Capacitor
C1	GCM188L81H104KA57D	-	0.1uF	1608(0603)	Capacitor
C2	GRM188R71C102KA01D	-	0.001uF	1608(0603)	Capacitor
R2,R3	ESR03EZPF2000	ROHM Co., Ltd.	200Ω	1608(0603)	Resistor
R5	ESR03EZPJ512	-	5.1kΩ	5025(2010)	Resistor
R7, R8	PMR03EZPJ000	ROHM Co., Ltd.	0Ω	5025(2010)	Resistor
R0,R1,R11,R12, R13,R4,R9,R10	N.M.	-	-	-	Resistor
D0, D1, D2, D3	N.M.	-	-	-	Zener Diode

Note: Only the materials used in BD1423xFVJ-EVK-001 are listed.

N.M. = Not Mounted

4. Layout (Top View)

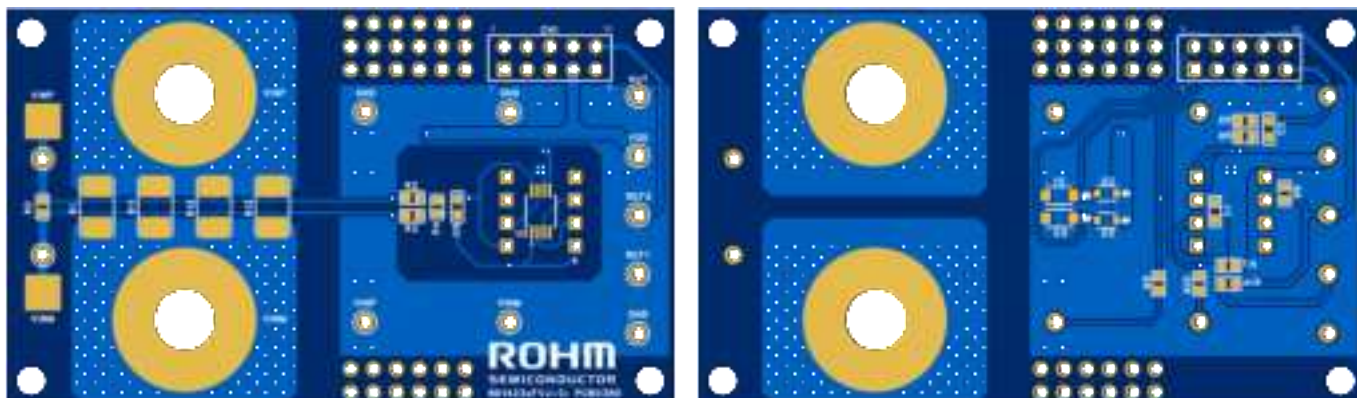


Figure 3. Layouts of BD1423xFVJ-EVK-001

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