



# High Reliability

# Voltage Detector IC series

## Top market share worldwide

Our voltage detector ICs are used in a wide variety of applications, consumer and industrial – a testament to their high quality and reliability.

## Broad lineup

Our expansive lineup includes units capable of voltage detection from as low as 0.9V and models compatible with the latest 1.0V drive microcontrollers.

## High reliability

8kV ESD resistance ensures the utmost in reliability.

## In-house manufacturing

The entire manufacturing process, from wafer fabrication to assembly and shipment – is performed completely in-house, resulting in an unmatched level of quality.

## Environmentally friendly

All of our products are both lead-free and RoHS-compliant, reducing the burden on the environment.



# ROHM

# Voltage Detector IC Series

## Standard CMOS Voltage Detector ICs

Part No.	Types	Voltage detection precision (%)	Voltage detection (V)	Detection step (V)	Output type	Circuit current (μA)		Hysteresis Voltage (V)	"L" Output current (mA)		Package
						ON	OFF		V <sub>DD</sub> =1.2V	V <sub>DD</sub> =2.4V	
BD48	G series	±1	2.3 to 6.0	0.1	Open drain	0.60 (Vs=4.8V)	0.85 (Vs=4.8V)	Vs×0.05	1	4	SSOP5
BD48	FVE series	±1	2.3 to 6.0	0.1							VSO5
BD49	G series	±1	2.3 to 6.0	0.1	CMOS	0.60 (Vs=4.8V)	0.85 (Vs=4.8V)	Vs×0.05	1	4	SSOP5
BD49	FVE series	±1	2.3 to 6.0	0.1							VSO5

\*Detection voltage (from 2.3V to 6.0V as 0.1V step) is applied in the of part No. Ex : In case of 2.3V detection voltage in BD48 G series, part No. is BD4823G.

## Flexible Delay Time CMOS Voltage Detectors

Part No.	Types	Voltage detection precision (%)	Voltage detection (V)	Detection step (V)	Output type	Circuit current (μA)		Hysteresis Voltage (V)	"L" Output current (mA)		Package
						ON	OFF		V <sub>DD</sub> =1.2V	V <sub>DD</sub> =2.4V	
BD52	G series	±1	2.3 to 6.0	0.1	Open drain	0.85 (VDET=4.8V)	0.85 (VDET=4.8V)	VDET×0.05	1.2	5	SSOP5
BD52	FVE series	±1	2.3 to 6.0	0.1							VSO5
BD53	G series	±1	2.3 to 6.0	0.1	CMOS	0.85 (VDET=4.8V)	0.85 (VDET=4.8V)	VDET×0.05	1.2	5	SSOP5
BD53	FVE series	±1	2.3 to 6.0	0.1							VSO5

\*Detection voltage (from 2.3V to 6.0V as 0.1V step) is applied in the of part No. Ex : In case of 2.3V detection voltage in BD52 G series, part No. is BD5223G.

## CMOS Voltage Detectors with Built-in Counter Timer

Part No.	Types	Voltage detection precision (%)	Voltage detection (V)	Detection step (V)	Output type	H <sup>+</sup> Counter timer delay time setting (ms)	Circuit current (μA)		Hysteresis Voltage (V)	"L" Output current (mA)		Package
							ON	OFF		V <sub>DD</sub> =1.2V	V <sub>DD</sub> =2.4V	
BD45	5G series	±1	2.3 to 4.8	0.1	Open drain	50	0.80 (VDET=4.8V)	0.85 (VDET=4.8V)	VDET×0.05	1.2	5	SSOP5
BD45	1G series	±1	2.3 to 4.8	0.1		100						SSOP5
BD45	2G series	±1	2.3 to 4.8	0.1		200						SSOP5
BD46	5G series	±1	2.3 to 4.8	0.1	CMOS	50	0.80 (VDET=4.8V)	0.85 (VDET=4.8V)	VDET×0.05	1.2	5	SSOP5
BD46	1G series	±1	2.3 to 4.8	0.1		100						SSOP5
BD46	2G series	±1	2.3 to 4.8	0.1		200						SSOP5

\*Detection voltage (from 2.3V to 4.8V as 0.1V step) is applied in the of part No. Ex : In case of 2.3V detection voltage in BD45 5G series, part No. is BD4523G.

## Low Voltage Standard CMOS Voltage Detector ICs

Part No.	Types	Voltage detection precision (%)	Voltage detection (V)	Detection step (V)	Output type	Circuit current (μA)		Hysteresis Voltage (V)	"L" Output current (mA)		Package
						ON	OFF		V <sub>DD</sub> =1.5V	V <sub>DD</sub> =2.4V	
BU48	G series	±1	0.9 to 4.8	0.1	Open drain	0.40 (VDET=4.8V)	0.55 (VDET=4.8V)	VDET×0.05	3.3	6.5	SSOP5
BU48	FVE series	±1	0.9 to 4.8	0.1							VSO5
BU48	F series	±1	0.9 to 4.8	0.1	CMOS	0.40 (VDET=4.8V)	0.55 (VDET=4.8V)	VDET×0.05	3.3	6.5	SOP4
BU49	G series	±1	0.9 to 4.8	0.1							SSOP5
BU49	FVE series	±1	0.9 to 4.8	0.1							VSO5
BU49	F series	±1	0.9 to 4.8	0.1	SSOP5						

\*Detection voltage (from 0.9V to 4.8V as 0.1V step) is applied in the of part No. Ex : In case of 2.3V detection voltage in BU48 G series, part No. is BU4823G.

## Low Voltage Flexible Delay Time CMOS Voltage Detectors

Part No.	Types	Voltage detection precision (%)	Voltage detection (V)	Detection step (V)	Output type	Delay circuit resistance (MΩ)	Circuit current (μA)		Hysteresis Voltage (V)	"L" Output current (mA)		Package
							ON	OFF		V <sub>DD</sub> =1.5V	V <sub>DD</sub> =2.4V	
BU42	G series	±1	0.9 to 4.8	0.1	Open drain	10	0.40 (VDET=4.8V)	0.55 (VDET=4.8V)	VDET×0.05	3.3	6.5	SSOP5
BU42	FVE series	±1	0.9 to 4.8	0.1								VSO5
BU42	F series	±1	0.9 to 4.8	0.1								SOP4
BU43	G series	±1	0.9 to 4.8	0.1	CMOS	10	0.40 (VDET=4.8V)	0.55 (VDET=4.8V)	VDET×0.05	3.3	6.5	SSOP5
BU43	FVE series	±1	0.9 to 4.8	0.1								VSO5
BU43	F series	±1	0.9 to 4.8	0.1								SOP4

\*Detection voltage (from 0.9V to 4.8V as 0.1V step) is applied in the of part No. Ex : In case of 2.3V detection voltage in BU42 G series, part No. is BU4223G.

## Bipolar Voltage Detector ICs

Part No.	Types	Voltage detection precision (%)	Voltage detection (V)	Detection step (V)	Output type	Circuit current (μA)		"L" Output current (mA)	Package
						ICCH	ICCL		
BD47	G series	±1	1.9 to 4.6	0.1	Open collector	1.6	1.5	15	SSOP5

\*Detection voltage (from 1.9V to 4.6V as 0.1V step) is applied in the of part No. Ex : In case of 2.3V detection voltage in BD47 G series, part No. is BD4723G.

- The contents described herein are correct as of 1st. November 2007.
- The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
- The application circuit examples, information, and various data pertaining to the use of the products presented in this documentation are provided for reference purposes only. Please note that ROHM cannot bear any responsibility regarding any problems relating to industrial property rights resulting from their use thereof.

The products listed in this catalog are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys). Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

Contact us for further information about the products.

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