



# High Reliability

# Voltage Detector IC series

## Top market share worldwide

Our reset 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

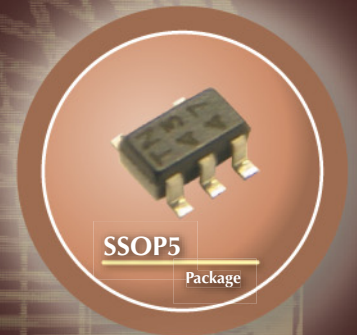
8kV ESD resistance and Gold Pad – Gold Wire connections ensure the utmost in reliability.

## 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	0.1V step 38 type	±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	0.1V step 38 type	±1	2.3 to 6.0	0.1							VSO5
BD49□□G series	0.1V step 38 type	±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	0.1V step 38 type	±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	0.1V step 38 type	±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	0.1V step 38 type	±1	2.3 to 6.0	0.1							VSO5
BD53□□G series	0.1V step 38 type	±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	0.1V step 38 type	±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* 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	0.1V step 26 type	±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	0.1V step 26 type	±1	2.3 to 4.8	0.1		100						VSO5
BD45□□2G series	0.1V step 26 type	±1	2.3 to 4.8	0.1		200						SSOP5
BD46□□5G series	0.1V step 26 type	±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	0.1V step 26 type	±1	2.3 to 4.8	0.1		100						VSO5
BD46□□2G series	0.1V step 26 type	±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	0.1V step 40 type	±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	0.1V step 40 type	±1	0.9 to 4.8	0.1							VSO5
BU48□□F series	0.1V step 40 type	±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	0.1V step 40 type	±1	0.9 to 4.8	0.1							SSOP5
BU49□□FVE series	0.1V step 40 type	±1	0.9 to 4.8	0.1							VSO5
BU49□□F series	0.1V step 40 type	±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□□F series	0.1V step 40 type	±1	0.9 to 4.8	0.1							VSO5

\*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	Circuit current (µA)		Hysteresis Voltage (V)	Delay circuit resistance (MΩ)	*L*Output current (mA)		Package
						ON	OFF			V <sub>DD</sub> =1.5V	V <sub>DD</sub> =2.4V	
BU42□□G series	0.1V step 40 type	±1	0.9 to 4.8	0.1	Open drain	0.40 (VDET=4.8V)	0.55 (VDET=4.8V)	VDET×0.05	10	3.3	6.5	SSOP5
BU42□□FVE series	0.1V step 40 type	±1	0.9 to 4.8	0.1								VSO5
BU42□□F series	0.1V step 40 type	±1	0.9 to 4.8	0.1	CMOS	0.40 (VDET=4.8V)	0.55 (VDET=4.8V)	VDET×0.05	10	3.3	6.5	SOP4
BU43□□G series	0.1V step 40 type	±1	0.9 to 4.8	0.1								SSOP5
BU43□□FVE series	0.1V step 40 type	±1	0.9 to 4.8	0.1								VSO5
BU43□□F series	0.1V step 40 type	±1	0.9 to 4.8	0.1	CMOS	0.40 (VDET=4.8V)	0.55 (VDET=4.8V)	VDET×0.05	10	3.3	6.5	SOP4
BU43□□F series	0.1V step 40 type	±1	0.9 to 4.8	0.1								VSO5

\*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	0.1V step 28 type	±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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