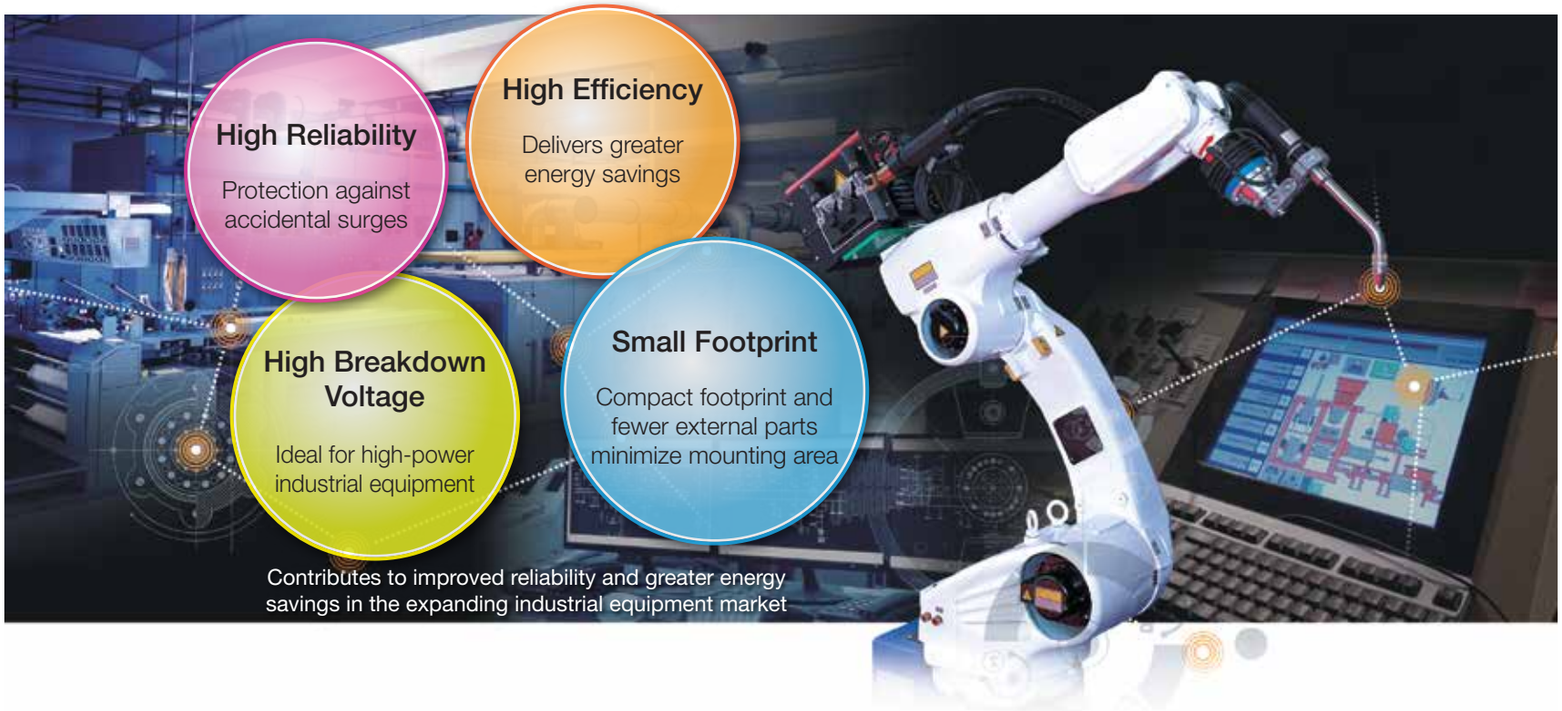
Ultra-High-Efficiency 76V DC/DC Buck Converter

Provides greater reliability and energy savings ideal for communications infrastructure and industrial equipment



ROHM's new **BD9G341AEFJ** 3A variable output voltage DC/DC buck converter with integrated 76V MOSFET features the lowest ON resistance and highest accuracy in its class along with a wide frequency range (50kHz to 750kHz) and industry-low standby current (10µA max.).

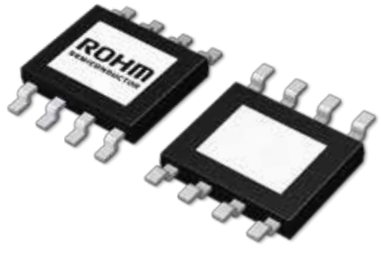
In addition, advanced high-voltage 0.6µm BiCDMOS process is utilized to achieve a continuous operating input range of 12V to 76V and an industry-leading maximum breakdown voltage of 80V (the highest in ROHM's non-isolated DC/DC converter lineup), while market-proven advanced analog design technology results in superior conversion efficiency. Furthermore, multiple protection circuits minimize heat generation – even during output pin shorts (contact) – preventing possible damage and increasing reliability vs. conventional products. And the compact 8-pin package requires fewer parts and reduces mounting area, contributing to easier PCB placement and end-product miniaturization.

Applications

- Communications infrastructure (switching stations, routers, telephone systems)
- Motors exposed to high surge voltages (electric bicycles, vacuum cleaners)
- Factory automation equipment
- Industrial machinery

Key Features

- Wide input voltage range: 12V to 76V
- High conversion efficiency
- Fewer external components required
- Compact 8-pin package
- Best-in-class ON resistance: 150mΩ
- Broad frequency range: 50kHz to 750kHz
- Industry-low standby current (10µA max.)
- Class-leading accuracy: ±1.5%
- Superior current output: 3A



Specifications

Part No.	Input Voltage Range	Output Voltage Range	Operating Frequency Range	$R_{DS(ON)}$ (Typ.)	Max Output Current	Standby Current (Max.)	Operating Temp. Range	Package
BD9G341AEFJ	12V ~ 76V	1.0V ~ Vcc	50kHz ~ 750kHz	150mΩ	3.0A	10µA	-40ºC ~ +85ºC	HTSOP-J8

ROHM SEMICONDUCTOR

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