ROHM SEMICONDUCTOR

New Product Bulletin

Compact Non-Isolated 3-Pin DC/DC Converters

BP5275 Series (BP5275-50, BP5275-33, BP5275-25, BP5275-18)



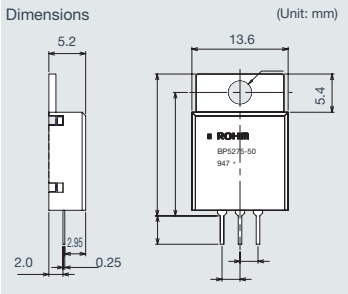
Step-down synchronous rectification switching regulators enable high efficiency DC/DC operation using no external parts

No Input/ Output Capacitor | Easy DC/DC Operation | Energy-Saving | Pin-compatible with 3-pin LDOs

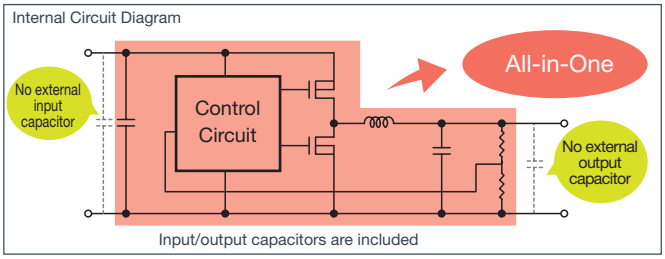
Product Outline

The compact, high performance BP5275 series utilizes synchronous rectification for high efficiency, high frequency operation. All components required for DC/DC conversion are built in, simplifying layout along with circuit/thermal design.

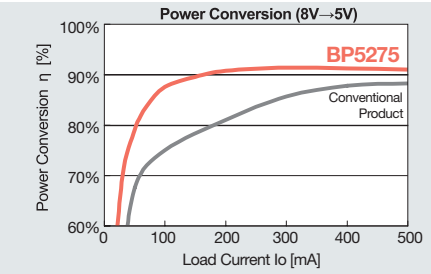
Compact package (TO-220) and no external parts required



All necessary components are integrated into the TO-220 package. And no input or output capacitors are required. The result is a mounting area 6 times smaller than conventional solutions. In addition, the units are pin-compatible with the 3-terminal LDOs, making replacement easy.



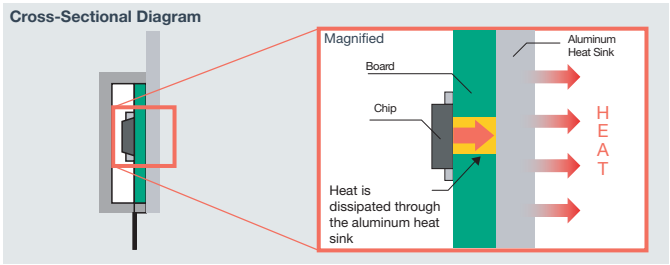
Synchronous rectification results in 93% efficiency



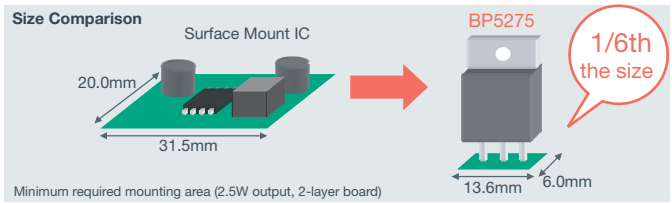
Conversion efficiency is significantly increased over conventional products, making it easy to lower set power consumption. In addition, the output voltage is accurate to within ±2%.

Original high heat dissipation configuration

Heat generated by the chip is dissipated through the attached aluminum heat sink, eliminating the need for thermal countermeasures. In addition, an external heat sink can be attached, making it possible to increase the output current.



Heat dissipation is required, even for surface mount DC/DC converter ICs. The BP5275 series was specially designed for optimum heat dissipation in a compact form factor, minimizing mounting area.



Absolute Maximum Ratings

No.	Parameter	Symbol	Rating	Unit	Remarks
1	Input Voltage	Vin	15	V	DC
2	Operating Temp.	Topr	-20 to 80	℃	
3	Storage Temp.	Tstg	-40 to 85	℃	
4	Surface Temp.	Tcmax	105	℃	Ambient + Module Temp ≤ Tcmax
5	Output Current	Iomax	500	mA	*1

*1: 800mA possible with heat sink

Lineup available in different output voltages : 1.8V/2.5V/3.3V/5.0V

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ROHM Co.,Ltd.
21 Saiin Mizosaki-cho, Ukyo-ku,
Kyoto 615-8585 Japan
TEL : +81-75-311-2121 FAX : +81-75-315-0172
www.rohm.com

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