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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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5V/150mA Output

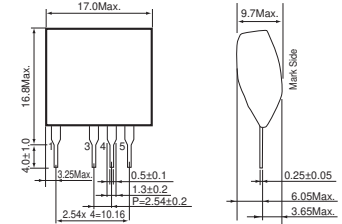
# Step-down DC/DC Converter (Non-isolated)

**BP5225**

## ● Absolute Maximum Ratings

Parameter	Symbol	Limits	Unit
Input voltage	$V_i$	30	V
Operating temperature range	$T_{opr}$	-20 to +80	°C
Storage temperature range	$T_{stg}$	-25 to +85	°C
Maximum surface temperature	$T_{smax}$	100	°C
Maximum output current	$I_{opeak}$	150	mA

## ● Dimensions (Unit : mm)

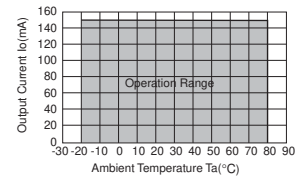


## ● Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage range	$V_i$	10.0	12.0	26.4	V	DC
Output voltage	$V_o$	4.8	5.0	5.2	V	$V_i=12V, I_o=150mA$
Output current	$I_o$	-	-	150	mA	$V_i=12V$ *1
Line regulation	$V_L$	-	0.04	0.10	V	$V_i=10.0$ to $26.4V, I_o=150mA$
Load regulation	$V_R$	-	0.03	0.20	V	$V_i=12V, I_o=0$ to $150mA$
Output ripple voltage	$V_p$	-	0.03	0.10	V <sub>pp</sub>	$V_i=12V, I_o=150mA$ *2
Power conversion efficiency	$\eta$	70	78	-	%	$V_i=12V, I_o=150mA$

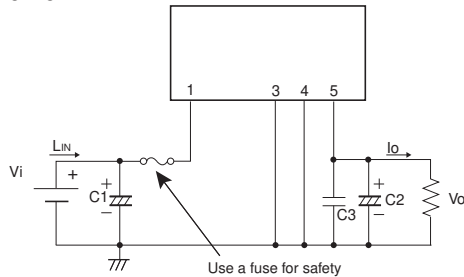
\*1 Maximum output current must be reduced by ambient temperature.  
\*2 An output ripple voltage sometimes changes in capacitor to use, the measurement environment.

## ● Derating Curve



## ● Application Circuit

BP5225



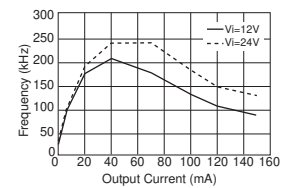
Pin No.	Function
1	Input terminal $V_i$
2	Not used
3	GND
4	GND
5	Output terminal $V_o$

Verify proper operation under actual conditions before use. In particular, confirm that the load current does not exceed the maximum rating.

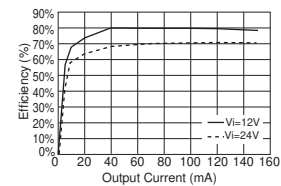
### External Component Specifications

FUSE: FUSE	Use a fast-acting fuse from 0.5 to 1A.
C1: Input Capacitor	Rated Voltage : More than 50V Capacity : 68 to 470 $\mu$ F, low impedance type Rated ripple current : More than 0.42Arms
C2: Output Capacitor	Rated Voltage : More than 10V Capacity : 100 to 470 $\mu$ F, low impedance type ESR : Less than 0.22 $\Omega$ Rated ripple current : More than 0.34Arms Evaluate under actual operating conditions since it affects the output ripple voltage.
C3: Noise Removal Capacitor	Rated Voltage : More than 10V Film or ceramic capacitor. Capacity : 0.1 to 0.22 $\mu$ F.

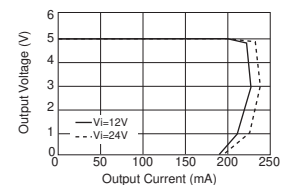
## ● Oscillation Frequency



## ● Conversion Efficiency



## ● Load Regulation



## ● Temperature Characteristics

