



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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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18V/500mA Output

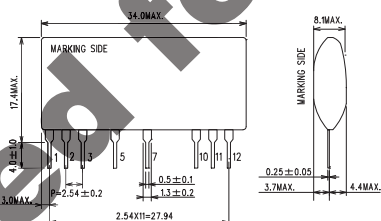
Step-down DC/DC Converter(Non-isolated)

BP5226-18

● Absolute Maximum Ratings

Parameter	Symbol	Limits	Unit	Conditions
Input voltage	V_i	46	V	DC
Operating temperature range	T_{opr}	-20 to +80	$^{\circ}\text{C}$	Refer to derating curve
Storage temperature range	T_{stg}	-25 to +105	$^{\circ}\text{C}$	
Maximum surface temperature	T_{cmax}	105	$^{\circ}\text{C}$	(Ambient temperature + the module self-heating) $\leq T_{cmax}$
Maximum output current	I_{omax}	500	mApk	

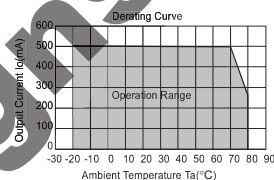
● Dimensions (Unit :mm)



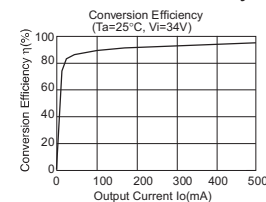
● Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage range	V_i	20	34	46	V	DC
Output voltage	V_o	17.0	18.0	19.0	V	$V_i=34\text{V}$, $I_o=500\text{mA}$
Output current	I_o	0	—	500	mA	$V_i=34\text{V}$
Line regulation	V_r	—	0.10	0.20	V	$V_i=20\text{ to }46\text{V}$, $I_o=500\text{mA}$
Load regulation	V_l	—	0.10	0.20	V	$V_i=34\text{V}$, $I_o=0\text{ to }500\text{mA}$
Output ripple voltage	V_p	—	0.05	0.20	Vpp	$V_i=34\text{V}$, $I_o=500\text{mA}$
CTL pin OFF voltage	V_{ctl}	3.1	—	14.0	V	SW1 OFF (V_o OFF)
CTL pin ON voltage	$V_{ctl(ON)}$	—	—	0.4	V	SW1 ON (V_o ON)
CTL terminal pull-up resistance	R_{ctl}	135	150	165	$\text{k}\Omega$	
Power conversion efficiency	η	85	90	—	%	$V_i=34\text{V}$, $I_o=500\text{mA}$

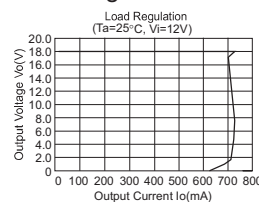
● Derating Curve



● Conversion Efficiency

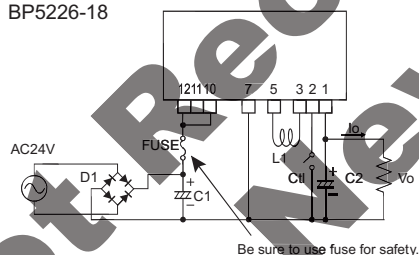


● Load Regulation



● Application Circuit

BP5226-18



Pin No.	Function
1	Output terminal:Vo(18V)
2	CTL terminal
3	Power inductor terminal
4	Skip
5	Power inductor terminal
6	Skip
7	COMMON
8	Skip
9	Skip
10	Input terminal
11	N.C.
12	Input terminal

Please verify operation and characteristics in the customer's circuit before actual usage.
Ensure that the load current does not exceed the maximum rating.

- Input terminal is 10 and 12.

External Component Specifications

FUSE: fuse	Use a quick-acting fuse (1.8A)
C1: Input capacitor	Above 50V, 470 μF to 820 μF
C2: Output capacitor	Above 25V, 100 μF to 1000 μF , low impedance
L1: Power inductor	Inductance 100 μH , Rating current:above 1.4A Select components that do not easily get magnetically saturated at high temperature
D1: Diode	Above 60V, current:above 1.0A