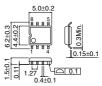
LDO Regulator With Shutdown Circuit BAOOBCOWF

Description

BA00BC0WF is a PNP output LDO regulator IC with the output current of 0.5A and a voltage accuracy of $\pm 2\%$. Output voltage can be set (1.5V to 12V) by external resistor. Over-current protection circuit and thermal protection circuit are incorporated to prevent IC from being damaged by short and thermal break down.

Dimension (Unit : mm)



Features

SOP8

- 1) Maximum output current: 0.5A
- 2) Output voltage setting by external resistor
- 3) Low drop-out voltage(1.5V to 12V) type with PNP output
- 4) Built-in over-current protection circuit to prevent IC from being damaged by short
- 5) Built-in thermal protection circuit
- 6) Built-in ON/OFF switch to realize the shutdown current 0uA
- 7) SOP8 package
- 8) C pin output voltage accuracy: ±2%

Applications

Printer, TV, DVD and Storage etc.

Absolute Maximum Ratings (Ta=25°C)

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Parameter	Symbol	Limits	Unit				
Supply voltage	Vcc	18 *1	V				
Power dissipation	Pd	620 *2	mW				
Operating temperature range	Topr	-40 ~ +85	°C				
Storage temperature range	Tstg	− 55 ~ +125	ŷ				
Junction temperature	Tjmax	125	ŷ				

■ Recommended Operating Conditions (Ta=25°C)

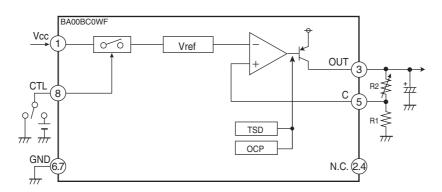
Parameter	Symbol	Min.	Тур.	Max.	Unit
Input voltage	Vcc	3.0	_	16.0	V
Output current	lo	-	-	0.5	Α
Output voltage	Vout	1.5	_	12.0	V

● Electrical Characteristics (Unless otherwise specified, Ta=25°C, Vcc=3.3V, Io=150mA, R1=30kΩ, R2=30kΩ)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Shut down current	Isd	_	0	10	μΑ	Vctl=0V
Vc pin voltage	Vc	1.225	1.250	1.275	V	Io=10mA
Output voltage	Vo	-	2.50	-	V	Io=150mA
Dropout voltage	ΔVd	_	0.18	0.30	V	Vcc=2.5V
Peak output current	lo	0.5	-	-	Α	
Ripple rejection	R.R.	44	55	-	dB	f=120Hz, ein=-20dBV, Io=100mA
Line regulation	Reg.I	_	20	50	mV	Vcc=4.5V → 16V
Load regulation	Reg.L	-	50	150	mV	Io=0mA → 500mA
Temperature coefficient of output voltage *1	Tcvo	_	±0.02	_	%/°C	Io=5mA, Tj=0~125°C
Bias current	lb	_	0.6	_	mA	Io=0mA
Short circuit output current	los	_	0.4	-	Α	Vcc=16V
Stand-by ON level	Vth1	2.0	-	-	V	ACTIVE MODE, Io=0mA
Stand-by OFF level	Vth2	_	_	0.8	V	OFF MODE, Io=0mA
Input high current	lin	40	80	130	μΑ	Vctl=3V, Io=0mA

This product is not designed for protection against radioactive rays.

Application Circuit



^{*1} Do not however exceed Pd.
*2 Mounted on 70mm x 70mm x 1.6mm glass-epoxy PCB Derating in done at 6.2mW/°C for operating above Ta=25°C

^{*1} Designed Guarantee.(Outgoing inspection is not done all products.)

* All characteristics are measured with a capacity across the input of 0.33µF and a capacity across the output of 0.22µF.

Measurement is done at Ta≒Tj, and variations in the parameter of all measurement(expect Temperature Coefficient of Output Voltage)caused by temperature change are not considered.