Low Voltage/1A Output LDO Regulator

BA□□BC0WFP/WT

BA□□BC0FP/T

●Description

BA□□BC0WFP/WT anBA□□○○BC0FP/T are PNP output LDO regulator ICs with the output current of 1A and voltage accuracy of ±2%. Over-current protection circuit and thermal protection circuit are incorporated. BA□□BC0WFP/WT incorporates shutdown switch to control output ON/OFF.

【Series line-up】

Part No.	Output Current (A)	Output Voltage(V)											Package
BA□□BC0WFP	1.0	1.5	1.8	2.5	3	3.3	5	6	7	8	9	10	TO252-5
BA□□BC0WT		1.5	1.8	2.5	3	3.3	5	6	7	8	9	10	TO220FP-5
BA□□BC0FP		1.5	1.8	2.5	3	3.3	5	6	7	8	9	10	TO252-3
BA□□BC0T		1.5	1.8	2.5	3	3.3	5	6	7	8	9	10	TO220FP

●Features

1) Maximum output current : 1A
2) Output voltage accuracy : ±2%
3) Low drop-out voltage type with PNP output
4) Built-in over-current protection circuit and thermal protection circuit
5) Built-in shutdown circuit which circuit current is 0uA.(BA□□BC0WFP/WT)
6) Two types of package (Small mounting type and insertion type)

●Applications

Consumer products

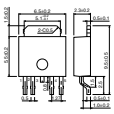
●Absolute Maximum Ratings (Ta=25˚C)

Parameter		Symbol	Limits	Unit
Supply Voltage		Vcc	18 ＊1	V
Power Dissipation	TO252-3	Pd	1200 ＊2	mW
	TO252-5		1300 ＊3	
	TO220FP-5		2000 ＊4	
	TO220FP		2000 ＊4	
Operating Temperature Range		Topr	−40 ～ +105	˚C
Storage Temperature Range		Tstg	−55 ～ +150	˚C
Junction Temperature		Tjmax	150	˚C

＊1 Do not however exceed Pd.
＊2 Mounted on 70mm×70mm×1.6mm glass-epoxy PCB Derating in done at 9.6mW/˚C for operating above Ta=25˚C
＊3 Mounted on 70mm×70mm×1.6mm glass-epoxy PCB Derating in done at 10.4mW/˚C for operating above Ta=25˚C
＊4 Derating in done at 16mW/˚C for operating above Ta=25˚C

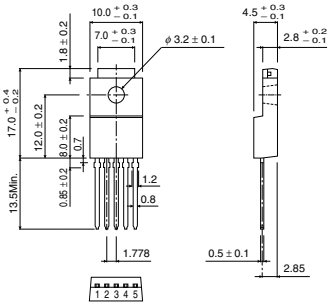
●Dimension (Units : mm)

BA□□BC0WFP



TO252-5

BA□□BC0WT



TO220FP-5

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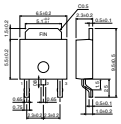

TO252-3

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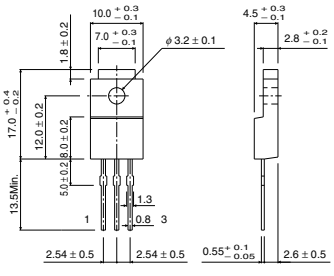


TO220FP

[BA□□BC0WFP/WT]

●Electrical Characteristics (Unless otherwise specified, Ta=25˚C, Vcc=3.3V, VCTL=3V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Shut down circuit current	Isd	–	0	10	μA	VCTL=0V, OFF MODE
Output voltage	Vo	0.98×Vo	Vo	1.02×Vo	V	Vo : Refer to the series line-up
Peak output current	Io	1.0	–	–	A	
Ripple rejection	R.R.	44	55	–	dB	f=120Hz, ein=−20dBV, Io=100mA
Line regulation	Reg.I	–	15	35	mV	Io=200mA
Load regulation	Reg.L	–	33	75	mV	Io=0mA → 1A
Temperature coefficient of output current *	Tcvo	–	±0.02	–	% / ℃	Io=5mA, Tj=0~125℃
ON mode voltage	Vth1	2.0	–	–	V	Io=0mA
OFF mode voltage	Vth2	–	–	0.8	V	OFF MODE, Io=0mA
Input high current	Iin	40	80	130	μA	Io=0mA

＊ Designed Guarantee.(Outgoing inspection is not done all products.)

[BA□□BC0FP/T]

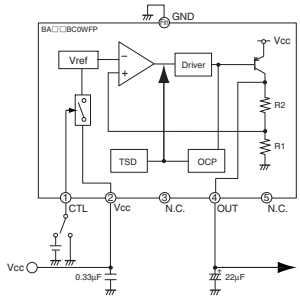
●Electrical Characteristics (Unless otherwise specified, Ta=25˚C, Vcc=3.3V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Output voltage	Vo	0.98×Vo	Vo	1.02×Vo	V	Vo : Refer to the series line-up
Peak output current	Io	1.0	–	–	A	
Ripple rejection	R.R.	44	55	–	dB	f=120Hz, ein=−20dBV, Io=100mA
Line regulation	Reg.I	–	15	35	mV	Io=200mA
Load regulation	Reg.L	–	33	75	mV	Io=0mA → 1A
Temperature coefficient of output current *	Tcvo	–	±0.02	–	% / ℃	Io=5mA, Tj=0~125℃

＊ Designed Guarantee.(Outgoing inspection is not done all products.)

●Application Circuit

[BA□□BC0WFP]



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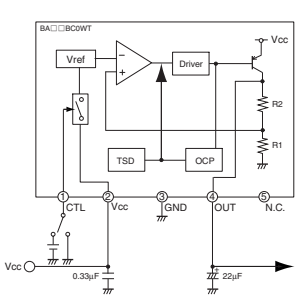

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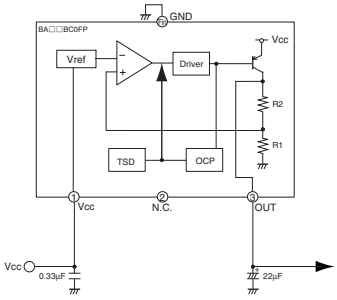

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