

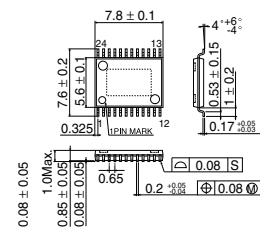
2ch switching regulator controller

BD9851EFV

● Description

BD9851EFV is a 2 channel DC/DC switching regulator controller. Switching of step-down and step-up for channel1 can be managed by setting pin. Channel 2 is available for step-down and inversion, suitable for various applications. This IC is available for 3MHz of switching frequency by high-speed driver technology and provides power configuration with space saving.

● Dimension (Unit : mm)



HTSSOP-B20

● Features

- 1) Built-in 2 channels for switching of step-down/step-up and step-down/inversion
- 2) FET (Nch/Pch) direct drive
- 3) 3MHz switching frequency available (Variable externally)
- 4) Power package of HTSSOP-B20
- 5) Built-in standby function

● Applications

TFT panel, TA/router, digital household appliances

● Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Power supply voltage	Vcc	20	V
Power dissipation	Pd	1000 *	mW
Operating temperature range	Topr	-40 ~ +85	°C
Storage temperature range	Tstg	-55 ~ +150	°C

*Derating : 8.0mW/°C for operation above Ta=25°C

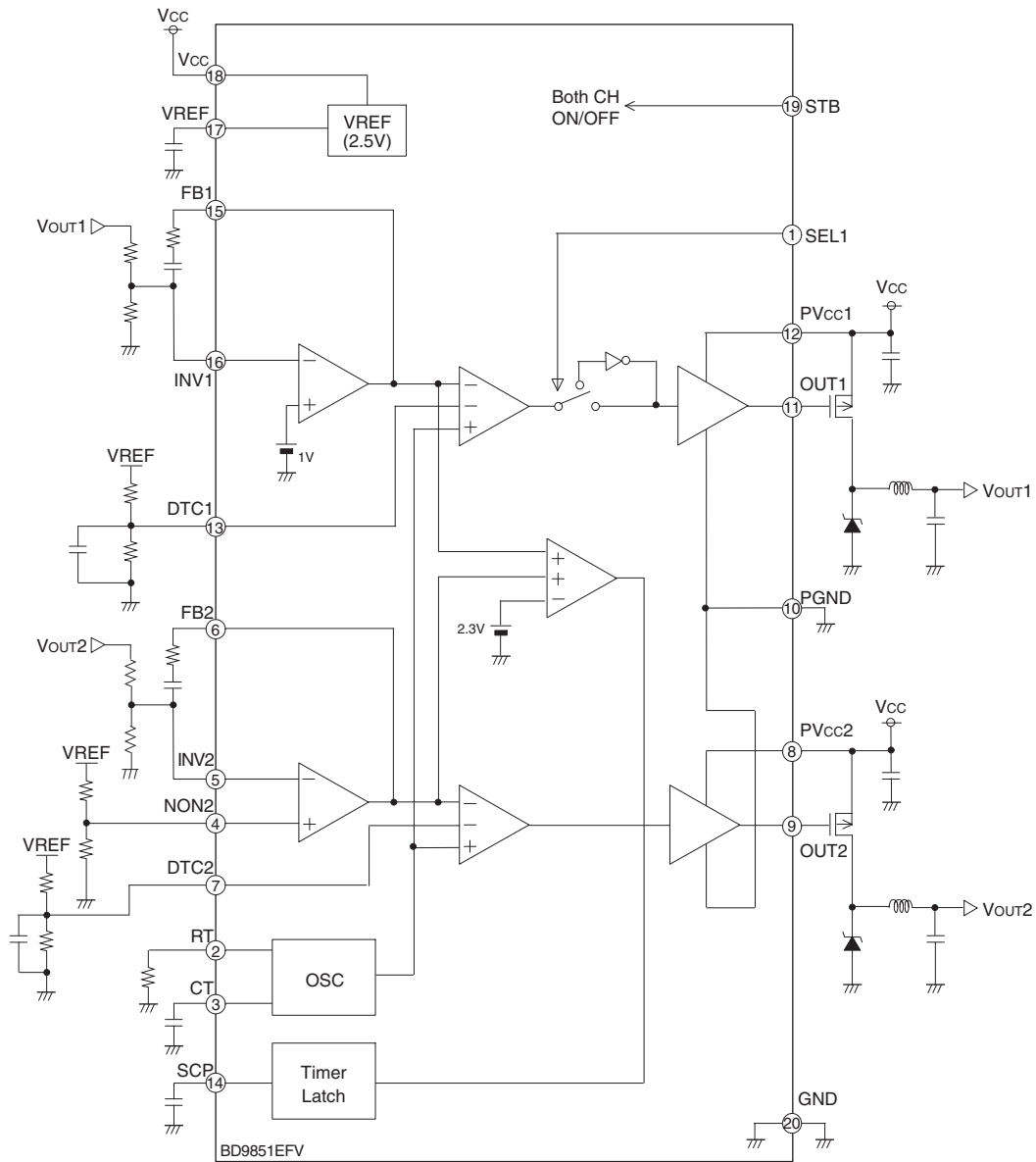
● Recommended Operating Conditions (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply voltage	Vcc	4	12	18	V
Oscillating frequency	fosc	10	300	3000	kHz

● Electrical characteristics (Unless otherwise noted: $T_a=25^{\circ}\text{C}$, $V_{cc}=12\text{V}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
VREF output voltage	VREF	2.475	2.500	2.525	V	$I_o=-0.1\text{mA}$
Oscillating frequency	fosc	270	300	330	kHz	$R_T=24\text{k}\Omega$, $C_T=220\text{pF}$
Error amplifier threshold voltage	VINV	0.98	1.00	1.02	V	
Gate drive ON resistance	RON	-	2.5	-	Ω	
Low current consumption	Icc	-	2.5	-	mA	STB=3V

● Application Circuit



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