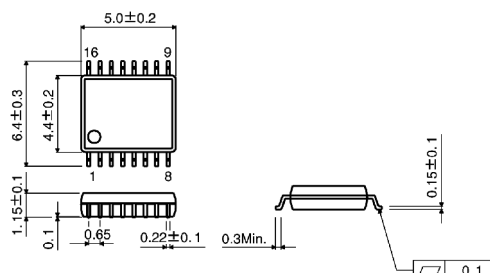


DC/DC Converter+Reset BH6557FV

●Description

The BH6557FV is a variable output DC/DC converter IC with reset. The DC/DC converter output voltage value and reset voltage value can be adjusted by external resistance.

●Dimension (Units : mm)



SSOP-B16

●Features

- 1) Synchronous rectification enables high efficiency
- 2) Built-in charge pump circuits for operating output power MOS
- 3) Built-in variable reset circuit
- 4) Built-in power MOS Tr requires fewer external components
- 5) Mute circuit built-in
- 6) Built-in thermal shut down circuit
- 7) SSOP-B16 package has a smaller board footprint

●Applications

CD-ROM

●Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Power MOS supply voltage	PowVcc	9	V
Control circuit supply voltage	PrePcc	9	V
Pre driver supply voltage	VG(9pin)	12	V
Output current from DSW terminal	Is womax	1 2	A
Power dissipation	Pd	560 1	mW
Operating temperature range	Topr	-30 ~ +85	°C
Storage temperature range	Tstg	-55 ~ +150	°C

1 Derating : 4.5mV/°C for operation above Ta=25°C.

On less than 3% (percentage occupied by copper foil), 70mm 70mm, t=1.6mm, glass epoxy mounting.

2 Intermittent current at maximum applied time of 5msec, 1/10 duty (Max.)

●Recommended Operating Conditions (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power MOS supply voltage	PowVcc	4.5	5.0	5.5	V
Control circuit supply voltage	PreVcc	4.5	5.0	5.5	V
Pre-driver supply voltage ³	VG(9pin)	8.0	10.0	11.5	V
Variable DC/DC converter output current ⁴	Io(Variable DC/DC)	—	300	500	mA
Ambient temperature	Ta	-10	25	70	°C
Variable DC/DC converter output voltage	VDD	1.7	—	Vcc-1	V
Reset threshold voltage range 1 ⁵	Vthrst 1	3.5	—	Vcc	V
Reset threshold voltage range 2 ⁶	Vthrst 2	1.25	—	Vcc	V

³ In case supply voltage provided outside without using charge-pump built-in.

⁴ L=47μH, C=47μF is used.

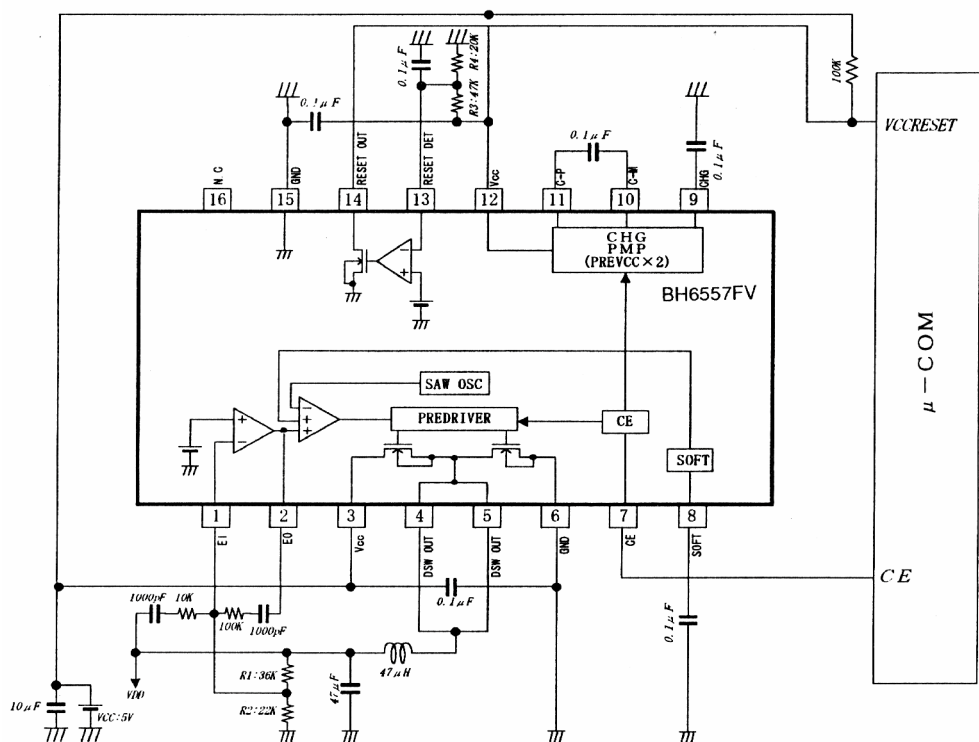
⁵ Setting voltage range when 12pin(PreVcc) is monitored.

⁶ Setting voltage range when the desired voltage except 12pin(PreVcc) is monitored.

●Electrical characteristics (Unless otherwise noted, Ta=25°C, PREVCC=5V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Current in standby mode	IST	—	170	290	μA	CE=0V
Quiescent current	ICC	—	1.45	2.60	mA	
EI terminal threshold voltage	VEITH	1.20	1.25	1.30	V	(5°C Ta 75°C : design guaranteed)
EO terminal output voltage H	VEOH	1.48	1.68	1.88	V	IEO=-100μA
EO terminal output voltage L	VEOL	—	0.01	0.15	V	IEO=100μA
DSW terminal ON resistance H	RDSWONH	—	0.42	0.87		IL=500mA
DSW terminal ON resistance L	RDSWONL	—	0.30	0.60		IL=-500mA
Charge-pump output voltage	VG	7.7	9.7	11.7	V	Operating
Reset detection threshold voltage	VDETON	1.20	1.25	1.30	V	

●Application circuit



※R1、R2はDC/DCコンバータ出力電圧が3.3V、
R3、R4はリセットONスレシ電圧が4.2Vとなるような設定