

1.20A / 24V / 1.4MHz Step-Down Converter

Description

The FH4710 is a buck regulator with a built-in internal power MOSFET. It can provide 1.2A continuous output current over a wide input supply range with excellent load and line regulation. Current mode operation provides fast transient response and eases loop stabilization. This device includes cycle-by-cycle current limiting and thermal shutdown protection. Internal soft-start reduces the stress on the input source at power-on.

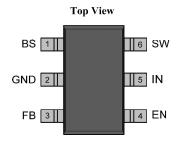
The FH4710 requires a minimum number of readily available external components to complete a 1.20A buck regulator solution.

Features

- > 1.2A Output Current
- > 0.35 Ω Internal High Side Power MOSFET Switch
- > Stable with Low ESR Output Ceramic Capacitors
- ➤ Up to 92% Efficiency
- ➤ 0.1µA Shutdown Mode Current
- ➤ Fixed 1.4MHz Frequency
- > Thermal Shutdown
- Cycle-by-Cycle Over Current Protection
- ➤ Wide 4.75 to 23V Operating Input Range
- > Output Adjustable From 0.81 to 15V
- ➤ Available in SOT23-6L/TSOT23-6L Packages

Pin Descriptions

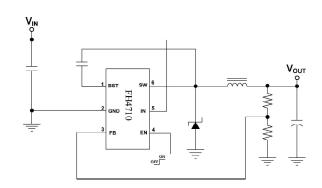
TSOT23-6L / SOT23-6L



Applications

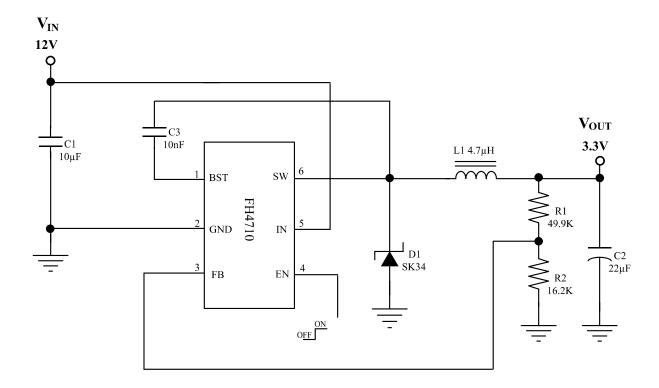
- > Distributed Power Systems
- > Battery Charger
- > DSL Modems
- Pre-Regulator for Linear Regulators

Typical Application Circuit

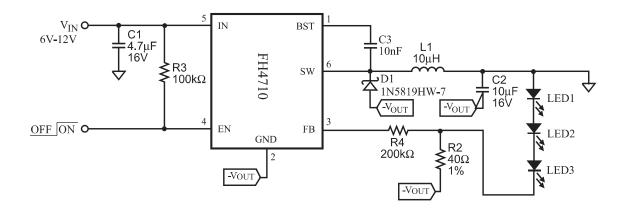


Name	No.	I/O	Description
BS	1	P	Bootstrap
GND	2	P	IC Ground
FB	3	I	Error Amplifier Compensation Output
EN	4	I	Enable / UVLO
IN	5	P	Supply Voltage
SW	6	О	Switch

Typical Application



■ 3.3V Output at 1A Step-Down Converter

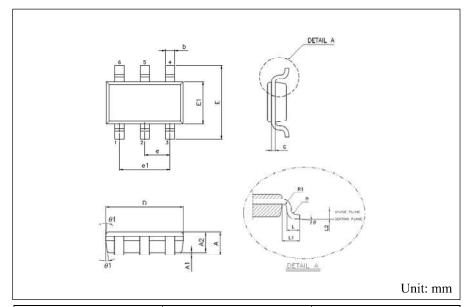


■ White LED Driver Application



Package Outline

TSOT23-6L

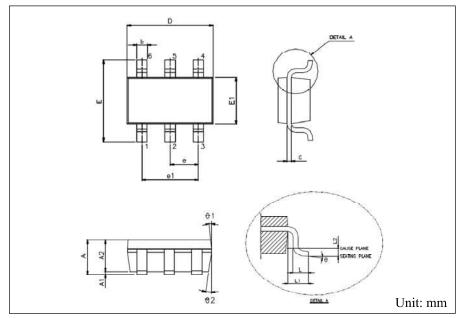


Symbols	Min. (mm)	Max. (mm)	
A	0.750	0.800	
A1	0.000	0.050	
A2	0.700	0.775	
b	0.350	0.500	
c	0.100	0.200	
D	2.800	3.000	
E	2.600	3.000	
E1	1.500	1.700	
e	0.950 BSC		
el	1.900 BSC		
L	0.370	0.600	
L1	0.600 REF		
L2	0.250 BSC		
R	0.100		
R1 0.100		0.250	
θ°	0°	8°	
θ1 4°		12°	

Note:

- 1. Dimension "D" does not include molding flash, protrusions or gate burrs.
- 2. Dimension "E1" does not include inter-lead flash or protrusions.

SOT23-6L



Symbols	Min. (mm)	Max. (mm)	
A	1.050	1.450	
A1	0.050	0.150	
A2	0.900	1.300	
b	0.300	0.500	
С	0.080	0.220	
D	2.900 BSC		
Е	2.800 BSC		
E1	1.600 BSC		
e	0.950 BSC		
e1	1.900 BSC		
L	0.300	0.600	
L1	0.600 REF		
L2	0.250 BSC		
θ°	0°	8°	
θ1°	3°	7°	
θ2°	6°	15°	

Note:

- 1. Package dimensions are in compliance with JEDEC outline: MO-178 AB.
- 2. Dimension "D" does not include molding flash, protrusions or gate burrs.
- 3. Dimension "E1" does not include inter-lead flash or protrusions.

Ordering Information

Part Number	Operating Temperature	Package	MOQ	Description
FH4710TM6	-40 °C ~ +85 °C	TSOT23-6L	3000EA	Tape & Reel
FH4710M6	-40 °C ∼ +85 °C	SOT23-6L	3000EA	Tape & Reel