VIN = 5 to 39 V, VOUT = 1.2 to 35 V, 1-channel DC-DC Step down Regulator integrated N-channel Power MOSFET

FEATURES

- 1-channel DC-DC Step Down Regulator Circuit that employs Voltage Mode Switching Control System
- Internal reference voltage is within ±1% accuracy
- Input Voltage Range : PVCC , VCC: 5 V ~ 39 V
- Adjustable Output Voltage Range with external Resistor : 1.2 V ~ 35V (Note)
- Adjustable Switching Frequency with external Resistor : 200 kHz ~ 2 MHz
- Standby mode consumes less than 1 µA current
- Output over voltage protection function (OVP1)
- Input over voltage protection function (OVP2)
- Output ground short protection function
- Over current protection with adjustable threshold.
- Under voltage lockout function (VREG)
- Thermal Shut Down function
- Adjustable soft-start function
- SSOP024-P-0300F

  (Size : 8.1 mm X 7.8 mm, 0.65 mm pitch),

  24pin Plastic Shrink Small Outline Package (SSOP Type)

Note) This is value in F=490kHz condition .

Please refer Page 10.

DESCRIPTION

AN33016UA is 1-channnel DC-DC Step down Regulator integrated N-channel Power MOSFET and employs the voltage mode switching control system.

This IC can be operated with wide input voltage range and is build in several protection functions, so this IC can provide high reliability power supply system.

Since it is possible to use up to 2 MHz switching frequency and it is unnecessary to add external parts for High Side Switch, this IC realizes downsizing of set and reducing in the number of external parts.

Output voltage is adjustable by user.

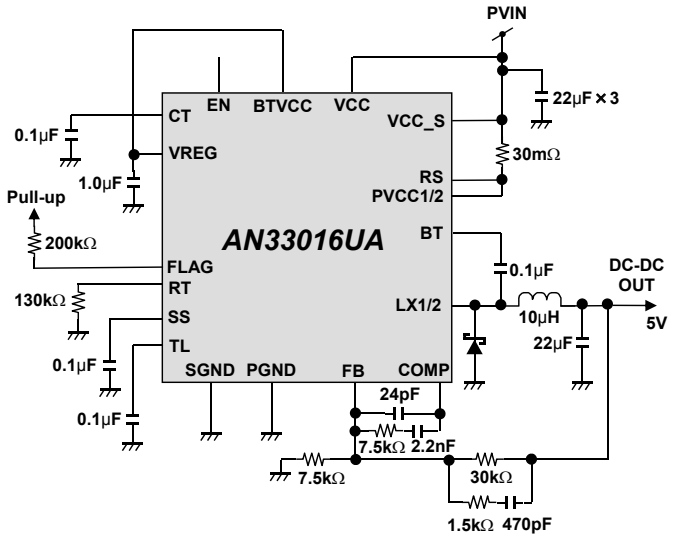
Maximum current is 1.5 A.

APPLICATIONS

High Input Voltage Power Systems such as

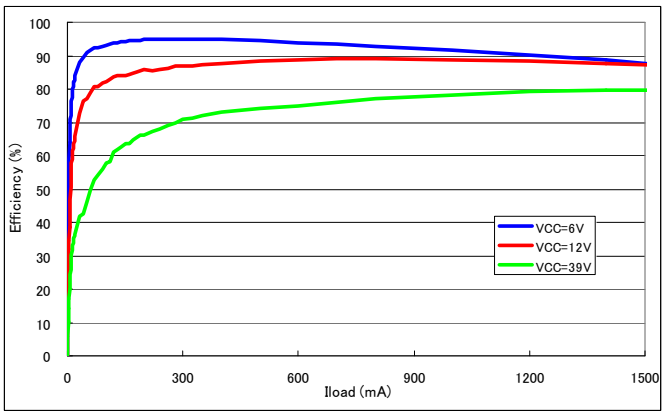
- Car-Audio system
- Car-Navigation system
- OA Equipment
- Home Appliances etc.

SIMPLIFIED APPLICATION



Notes) ・This application circuit is an example. The operation of mass production set is not guaranteed. You should perform enough evaluation and verification on the design of mass production set. You are fully responsible for the incorporation of the above application circuit and information in the design of your equipment.
・Please set 0.1uF to SS pin and TL pin capacitor. If you change, please to become CTL>CSS × 0.9.

EFFICIENCY CURVE



Condition)

Vin = 6 , 12 , 39 V, Vout = 5 V,

Lo = 10 µH, Co = 22 µF, Frequency = 490 kHz