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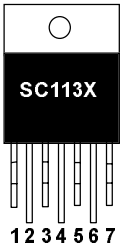
DESCRIPTION

The SC1131/2/3/4 incorporates a high current low dropout linear regulator section together with a switching buck mode controller. This unique combination is well suited for high current low voltage power supply applications such as the Intel Pentium™ P55, AMD K6 and the Cyrix M2 processors. The SC113X was designed to reduce the number of components required to design a dual power supply for multivoltage processor applications.

Switching Controller Section: The switching control section is a voltage mode controller designed for high current, low voltage power supply applications. Key features include a temperature compensated voltage reference, triangular oscillator and an internally compensated transconductance error amplifier. The switching controller operates at a fixed frequency of 200kHz, providing an optimum compromise between size, efficiency and cost in the intended application areas.

Linear Section: The linear portion is a high performance positive voltage regulator designed for use in applications requiring "very low dropout performance" at 1.5, 3, 5 and 7.5 amps. Additionally, the linear section provides excellent regulation over variations due to changes in line, load or temperature.

PIN CONFIGURATION



Pin #	Pin Name	Pin Function
1	DH	MOSFET Driver Output
2	P_{GND}	Switching Power Ground
3	Vo_{SENSE}	Error Amplifier Input (Switcher)
4	GND	Signal Ground
5	V_{CC}	+12V Input Voltage
6	V_{OUT}	V_{OUT} (Linear Section)
7	V_{IN}	+5V Input Voltage

FEATURES

- 85% typical efficiency for switching section
- Grounded tab
- 1.5, 2.5 or 3.3V @ 1% for linear
- Thermal shutdown
- Internal short circuit protection
- 7 pin TO-220 package

APPLICATIONS

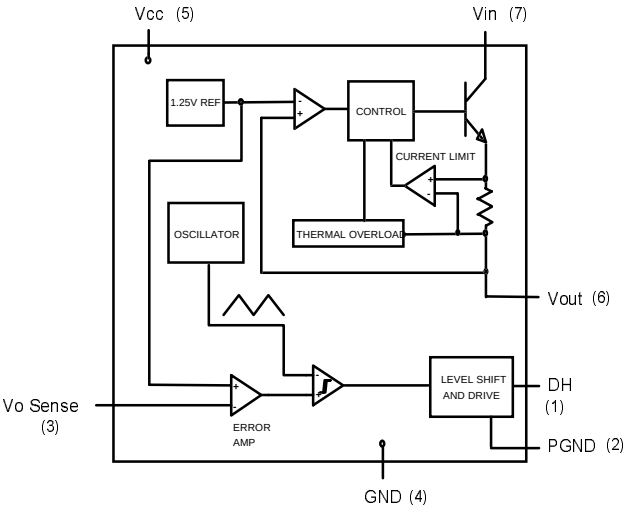
- Microprocessor supplies
- Modules supplies
- 1.3V to 3.5V power supplies
- Dual power supplies from 5V source

ORDERING INFORMATION

PART NUMBER(1)	PACKAGE	OUTPUT CURRENT
SC1131CT-XY	TO-220	1.5A
SC1132CT-XY	TO-220	3.0A
SC1133CT-XY	TO-220	5.0A
SC1134CT-XY	TO-220	7.5A

Note:
(1) Where XY denotes voltage options and lead configurations. Available voltages (X) are: 1.5V, 2.5V and 3.3V. Available lead configurations (Y) are dual bend (DB), single bend (SB) and straight leads (leave blank). Sample part number: SC1133CT-2.5DB.

BLOCK DIAGRAM



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