Panasonic

AN8064SP

Low Drop-out Voltage Regulator

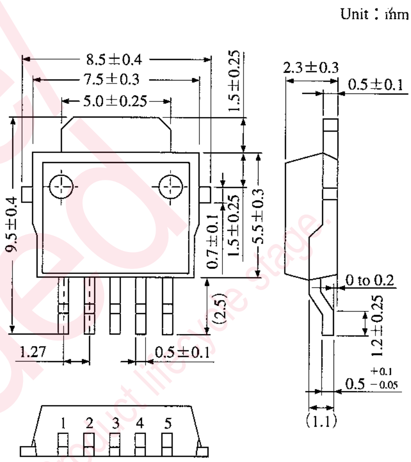
Overview

The AN8064SP is a voltage regulator IC with strobe pin capable of switching the output ON/OFF.

Its rated load current is 150mA and output voltage is 4V fixed.

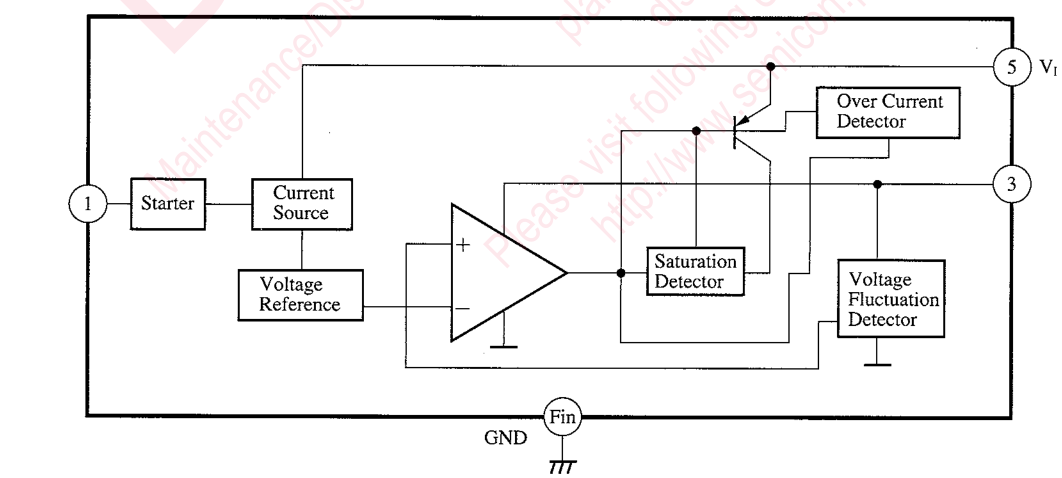
Features

- 150mA rated load current and 4V fixed output voltage
- Capable of turing off output by setting the strobe pin to the "L" level
- Minimum input/output voltage difference : typ. 0.25V
- Built-in overcurrent protective circuit
- Surface-mount type 5-pin SIL plastic package



5-pin SIL Plastic Package (HSIP005-P-0000)

Block Diagram



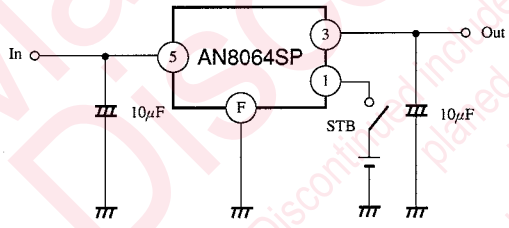
■ Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Unit
Supply voltage	V_I	14.4	V
Power dissipation	P_D	500	mW
Operating ambient temperature	T_{opr}	−20 to +75	℃
Storage temperature	T_{stg}	−55 to +125	℃

■ Electrical Characteristics (Ta=25℃)

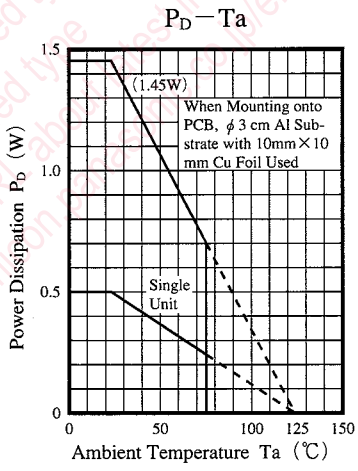
Parameter	Symbol	Condition	min	typ	max	Unit
Output voltage	V_O	V_I=12V, I_O=150mA	3.84	4	4.16	V
Output voltage range	V_t	V_I=5 to 14.4V, I_O=0 to 150mA	3.76	4	4.24	V
Bias current at no load	I_{bias}	V_I=11V, I_O=0mA	—	2.9	4	mA
Load regulation	REG_L	V_I=11V, I_O=0 to 150mA	—	—	100	mV
Line regulation	REG_{IN}	V_I=5 to 13V, I_O=150mA	—	—	100	mV
Minimum input/output voltage difference	$V_{DIF(min.)}$	V_I=3.5V, I_O=150mA	—	—	0.6	V
Rush current	I_{rush}	V_I=3.5V, I_O=0mA	—	2.5	—	mA
Output short-circuit current	$I_{O(short)}$	V_I=11V	350	—	550	mA
Load bias current fluctuation	ΔI_{biasl}	V_I=11V, I_O=0 to 150mA	—	—	10	mA
Off-state bias current	I_{OFF}	V_I=11V, V_S=0V	—	—	2	μA
Strobe pin input current	I_S	V_I=11V, V_S=2.5V	—	—	200	μA
Strobe pin threshold voltage	$V_{S(TH)}$	V_I=11V	0.8	2	2.4	V
Ripple rejection ratio	RR	V_I=9 to 13V, I_O=150mA, f=120kHz	—	55	—	dB

■ Application Circuit



• When using at a low temperature, it is recommended to use capacitors with a low internal impedance (for example, tantalum capacitors) for output capacitors.

■ Characteristics Curve



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