Panasonic

AN8060, AN8060S

Low Drop Type Negative Output (–4V) Regulator with Reset Pin

■ Overview

The AN8060 and the AN8060S are the low drop type regulators having the function of resetting output voltage. With a comparator to sence reduced voltage builting it is suitable for batteries operation.

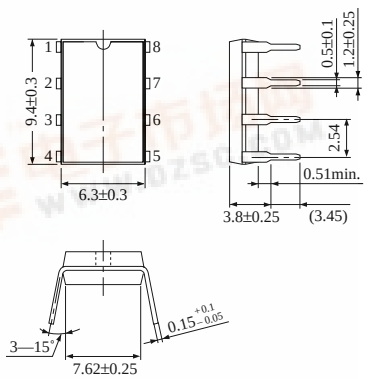
■ Features

- With reset function : bias current at resetting –5μA
- Small input-output voltage difference : I_O=30mA, 0.2V
- Low Supply Voltage sensing comparator built-in

■ Pin Descriptions

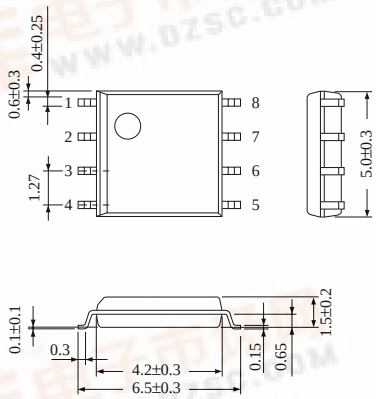
Pin No.	Symbol	Pin name
1	GND	GND
2	V_I	Input voltage
3	V_O	Output voltage
4	C_{ADJ}	Low supply voltage sensing adj.
5	RSENSE	Low supply voltage sensing output
6	RESET	Reset pin
7	D_{iC}	Diode pin (Cathode)
8	D_{iA}	Diode pin (Anode)

AN8060 Unit : mm



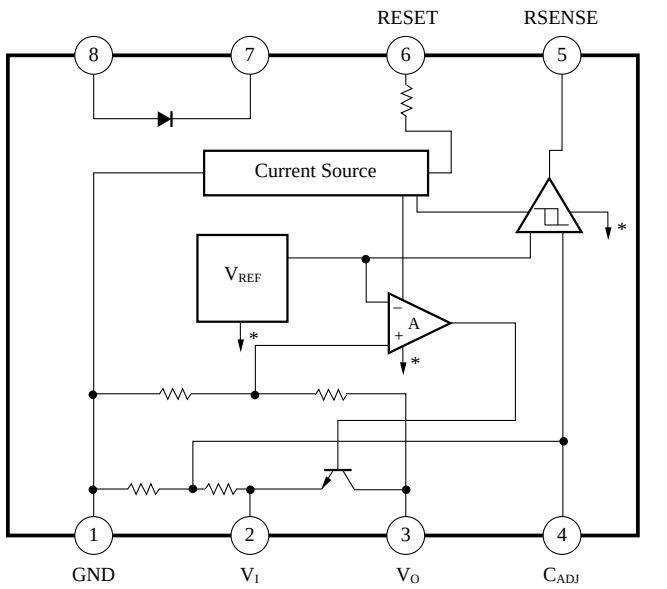
8-pin DIL Plastic Package (DIP008-P-0300B)

AN8060S Unit : mm



8-pin · SOP package (SOP008-P-0225A)

■ Block Diagram



■ Absolute Maximum Ratings (Ta=25˚C)

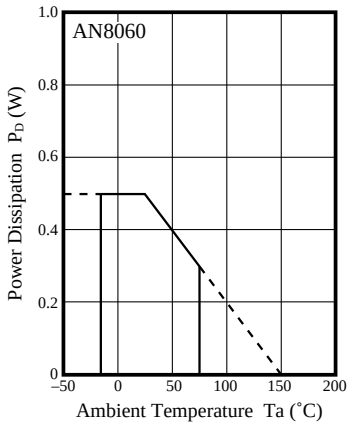
Parameter	Symbol		Rating	Unit
Supply voltage	V_{CC}		–12 to + 0.3	V
Supply current	I_{CC}		—	mA
Power dissipation	P_D	AN8060	500	mW
		AN8060S	361	
Operating ambient temperature	T_{opr}		–20 to + 75	˚C
Storage temperature	T_{stg}	AN8060	–55 to + 150	˚C
		AN8060S	–55 to + 125	

■ Electrical Characteristics (Ta=25˚C)

Parameter	Symbol	Condition	min	typ	max	Unit
Bias current at reset	I_{RB}	V_{RESET}=0V, V_I= –6V	—	—	5	µA
Bias current at no load	I_{UB}	V_I= –6V	—	2.5	6	mA
Output voltage	V_O	V_I= –6V, I_O=10mA	–4.08	–3.92	–3.76	V
Output voltage tolerance	V_T	V_I= –4.4 to –8V, I_O=1 to 30mA	–4.06	—	–3.66	V
Stable input voltage	V_{IS}	V_I= –4.4 to –7.4V, I_O=10mA	—	3.6	60	mV
Stable lock voltage	V_{LS}	V_I= –6V, I_O=1 to 30mA	—	8	60	mV
Input/Output voltage difference	V_{IOS}	V_I= –3.8V, I_O=30mA	—	0.1	0.2	V
Reset pin input current (H)	I_{RICH}	V_I= –6V, V_{RESET}=0V	–1	—	—	µA
Reset pin input current (L)	I_{RICL}	V_I= –6V, V_{RESET}= –6V	–200	—	—	µA
Low supply voltage sending level	V_{RDL}	I_O=10mA	–4.55	–4.3	–4.05	V
Output voltage at reset	V_{RO}	V_{RESET}=0V, V_I= –6V	– 0.1	—	—	V
Comparator output current	I_{CO}	V_I= –4V, V_{RSENSE}= –3.6V	1	—	—	mA

■ Characteristics Curve

P_D–Ta



P_D – Ta