

# DATA SHEET

Part No.	AN80T53
Package Code No.	HZIP007-P-0750A

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# AN80T53

## Multi voltage regulator IC

### ■ Features

- 4 outputs voltage regulator
- Peak current protection circuit
- Thermal protection circuit
- Load short protection circuit

### ■ Applications

- For power supply

### ■ Package

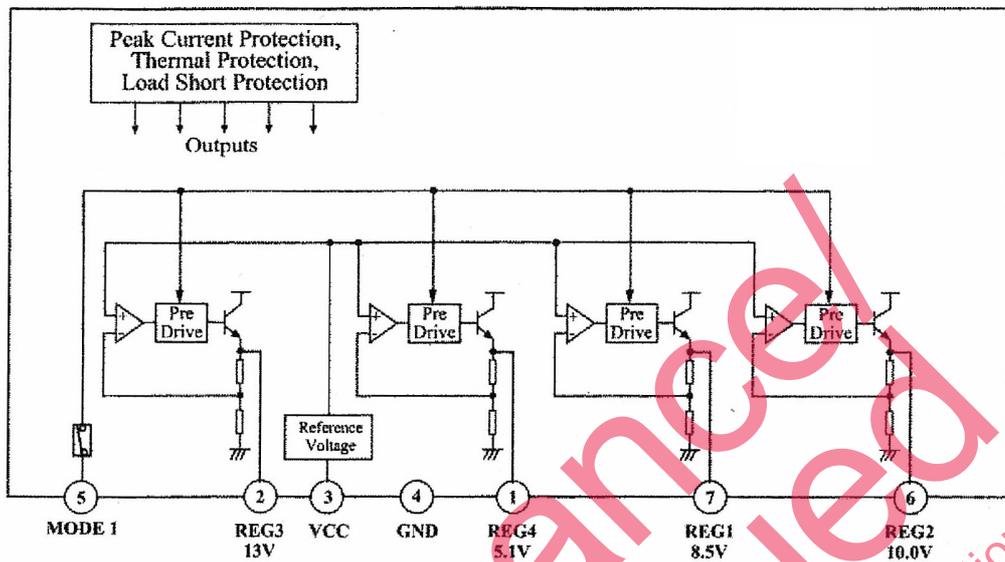
- TO-2207 pins plastic package (power type with fin)

### ■ Type

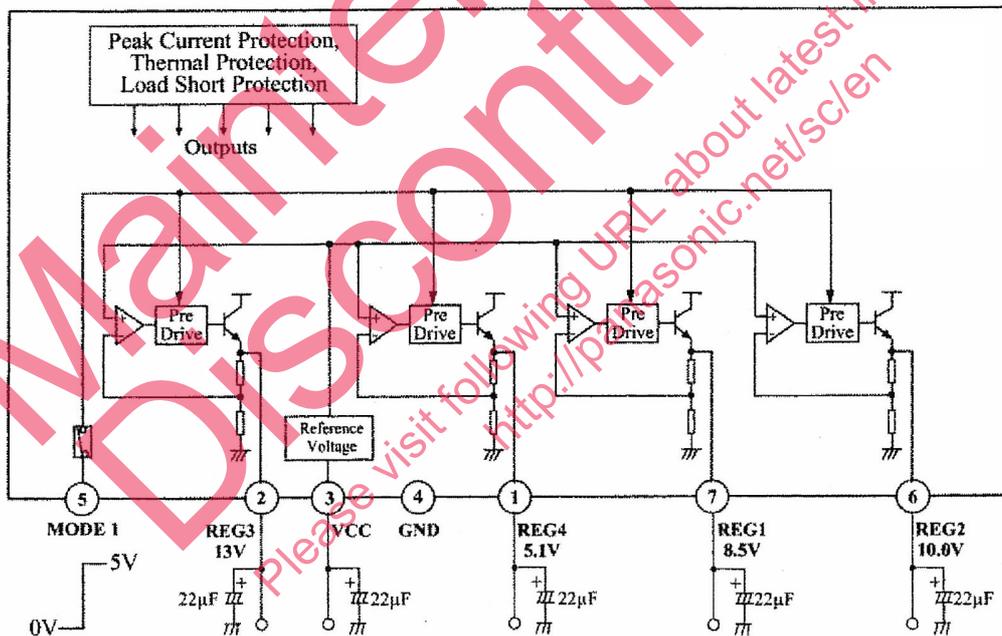
- Silicon monolithic bipolar IC

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### ■ Block Diagram



### ■ Application Circuit Example



MODE 1 = 0V	REG1, REG2, REG3 & REG4 OFF
MODE 1 = 5V	REG1, REG2, REG3 & REG4 ON

- Note )
1. To prevent oscillation at each output, make sure to connect a capacitor having a capacitance of 22 μF or greater between GND and each of the REG1 (pin 5), REG2 (pin 7), REG3 (pin 3) and V<sub>CC</sub> (pin 6) pins. We recommend using a tantalum electrolytic capacitor whose capacitance is unsusceptible to temperature.
  2. When supplied a V<sub>CC</sub> of 21 V or greater, IC may be damaged if REG2 or REG3 outputs are shorted to GND.
  3. When supplied a V<sub>CC</sub> of 21 V or greater, IC may be damaged if REG2 or REG3 outputs are load short.

### ■ Pin Descriptions

Pin No.	Pin name	Description
1	REG4 Output	5.1 V power supply with a minimum peak output current of 1 200 mA
2	REG3 Output	13 V power supply with a minimum peak output current of 1 350 mA
3	VCC	Connected to power supply.
4	GND	Connected to the IC substrate.
5	MODE1	REG1, REG2, REG3 and REG4 outputs are turned ON when this pin is 5 V.
6	REG2 Output	10 V power supply with a minimum peak output current of 800 mA
7	REG1 Output	8.5 V power supply with a minimum peak output current of 700 mA

### ■ Absolute Maximum Ratings

A No.	Parameter	Symbol	Rating	Unit	Note
1	Storage temperature	$T_{stg}$	-55 to +150	°C	*1
2	Operating ambient temperature	$T_{opr}$	-30 to +85	°C	*1
3	Operating ambient pressure	$P_{opr}$	$1.013 \times 10^5 \pm 0.61 \times 10^5$	Pa	
4	Operating constant acceleration	$G_{opr}$	9 810	m/S <sup>2</sup>	
5	Operating shock	$S_{opr}$	4 900	m/S <sup>2</sup>	
6	Power supply voltage	$V_{CC}$	30.0	V	
7	Power supply current	$I_{CC}$	3.0	A	*2
8	Power dissipation	$P_D$	13	W	*3

Note ) \*1: Except these items, all other measurements are taken at  $T_a = 25^\circ\text{C}$ .

\*2: Over current limiting circuit built-in.

\*3:  $T_a = 85^\circ\text{C}$  infinite heat sink.

### ■ Operating Supply Voltage Range

Parameter	Symbol	Range	Unit	Note
Operating supply voltage range	$V_{CC}$	15.0 to 30.0	V	*

Note ) \*: Minimum peak output current is not guaranteed at  $V_{CC} = 24\text{ V}$  to  $30\text{ V}$

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