PRELIMINARY

3-TERMINAL POSITIVE VOLTAGE REGULATOR

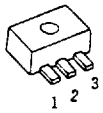
■ GENERAL DESCRIPTION

The NJU7202 series is a 100mA Output 3-terminal positive voltage regulator which contains internal accurate voltage reference, error amplifier, control transistor output-voltage setting resistor and shotdown prevention circuit.

The regulation voltage is fixed by internal circuits and the following line-up of different output voltages version are available.

This series is suitable for battery operated items and battery back-up systems because of low current consumption and low dropout voltage.

■ PACKAGE OUTLINE / PIN CONFIGURATION



NJU7202L(TO-92) NJU7202U(SOT-89)

■ FEATURES

- High Efficiency Output Current (I_O=100mA)
- Low Current Consumption (20μA typ)
- Wide Operating Voltage Range
- Low Dropout Voltage (ΔV_{IO}<0.6V, I_O=100mA)
- Small Temperature Coefficient of Output Voltage
- Over Current Protection Circuit Built-In
- Package Outline TO-92 / SOT-89
- C-MOS Technology

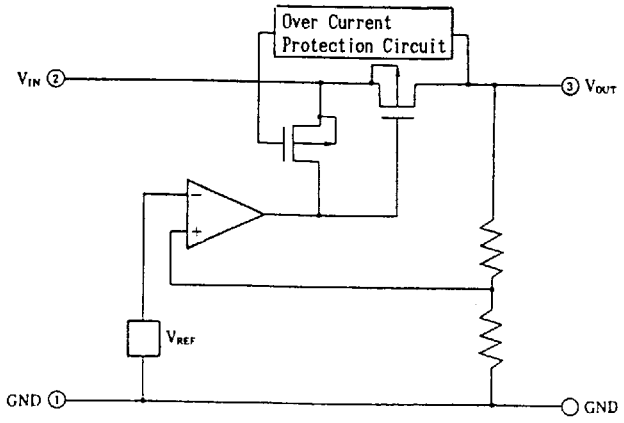
■ TERMINAL DESCRIPTION

NO	DESCRIPTION
1	GND
2	INPUT
3	OUTPUT

■ OUTPUT VOLTAGE LINE-UP

OUTPUT VOLTAGE	TO-92 TYPE	SOT-89 TYPE
5.0V	7202L50	7202U50

■ EQUIVALENT CIRCUIT



■ ABSOLUTE MAXIMUM RATINGS

(Ta=25℃)

PARAMETER	SYMBOL	RATINGS	UNIT
Input Voltage	V_{IN}	18	V
Output Voltage	V_{OUT}	GND+0.3～V_{IN}-0.3	V
Output Current	I_{OUT}	200	mA
Power Dissipation	P_D	(TO-92) 500 (SOT-89) 300	mW
Operating Temperature Range	T_{opr}	- 25～+ 75	℃
Storage Temperature Range	T_{stg}	- 40～+125	℃

■ ELECTRICAL CHARACTERISTICS

● +5.0V VERSION

(Ta=25℃)

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Output Voltage	V_{OUT}	V_{IN}=7.0V, I_{OUT}=70mA	4.75	5.00	5.25	V
Dropout Voltage	ΔV_{IO}	I_{OUT}=100mA		0.30	0.60	V
Input Voltage	V_{IN}				14	V
Current Consumption	I_Q	V_{IN}=7.0V		20	30	μA
Load Regulation	$\Delta V_{OUT}/\Delta I_{OUT}$	V_{IN}=7.0V, I_{OUT}=1～100mA			160	mV
Line Regulation	$\Delta V_{OUT}/(\Delta V_{IN} \cdot V_{OUT})$	V_{IN}=6.0V～12.0V		0.1		%/V

■ MEASUREMENT CIRCUIT