PRELIMINARY

HIGH PRECISION AND HIGH OUTPUT CURRENT C-MOS 3-TERMINAL VOLTAGE REGULATOR

■ GENERAL DESCRIPTION

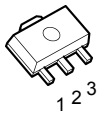
The **NJU7222 series** is a high precision output voltage (±2%) and high output current C-MOS 3-terminal positive voltage regulator which contains internal accurate voltage reference, error amplifier, control transistor, output voltage setting resistor and short current protection circuit.

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

The short current protection circuit prevents destruction of a element by careless great current output in short circuit.

The **NJU7222 series** is suitable for battery operated items and battery back-up systems because of low operating current and low dropout voltage.

■ PACKAGE OUTLINE



NJU7222U (SOT-89)

■ FEATURES

- High Precision Output Voltage ±2%
- High Output Current I_O = 100mA
- Low Operating Current 20μA typ
- Low Dropout Voltage ΔV_{IO} < 0.6V @I_O = 100mA
- Wide Operating Voltage Range
- Small Temperature Coefficient of Output Voltage
- Short Current Protection Circuit
- Package Outline SOT-89
- C-MOS Technology

■ TERMINAL DESCRIPTION

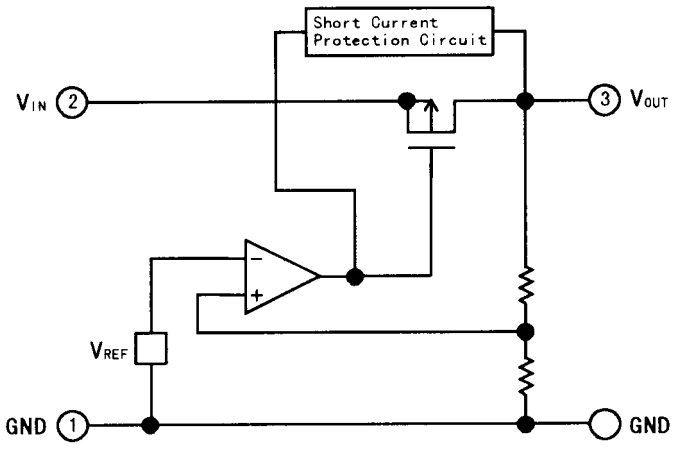
No.	Description
1	GND
2	Input
3	Output

■ OUTPUT VOLTAGE LINE-UP

Output Voltage	SOT-89 Type
+3.0V	NJU7222U30
+3.3V	NJU7222U33
+5.0V	NJU7222U50

Note1) The SOT-89 type name is different from the marking, so it refer to attached paper correspondence table.

■ EQUIVALENT CIRCUIT



■ ABSOLUTE MAXIMUM RATINGS

(T_a = 25ºC)

PARAMETER	SYMBOL	RATINGS	UNIT
Input Voltage	V_{IN}	15	V
Output Voltage	V_{OUT}	GND-0.3 to V_{IN}+0.3	V
Output Current	I_{OUT}	200	mA
Power Dissipation	P_D	300 (SOT-89)	mW
Operating Temperature Range	T_{opr}	-25 to + 75	ºC
Storage Temperature Range	T_{stg}	-40 to +125	ºC

■ ELECTRICAL CHARACTERISTICS

+3.0V Version (C_{IN} = C_O = 0.1µF, T_a = 25°C)

PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Output Voltage	V_{OUT}	V_{IN} = 5.0V, I_{OUT} = 70mA	2.85	3.00	3.15	V
Dropout Voltage	ΔV_{IO}	I_{OUT} = 50mA	-	0.4	0.6	V
Input Voltage	V_{IN}		-	-	14	V
Operating Current	I_{DD1}	V_{IN} = 5.0V	-	20	30	µA
Load Regulation	$\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$	V_{IN} = 5.0V, I_{OUT} = 1 to 100mA	-	120	160	mV
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$	V_{IN} = 4.0 to 12.0V	-	0.1	-	%/V

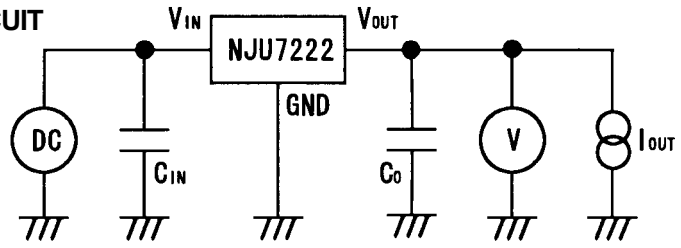
+3.3V Version (C_{IN} = C_O = 0.1µF, T_a = 25°C)

PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Output Voltage	V_{OUT}	V_{IN} = 5.3V, I_{OUT} = 70mA	3.135	3.300	3.465	V
Dropout Voltage	ΔV_{IO}	I_{OUT} = 50mA	-	0.4	0.6	V
Input Voltage	V_{IN}		-	-	14	V
Operating Current	I_{DD1}	V_{IN} = 5.3V	-	20	30	µA
Load Regulation	$\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$	V_{IN} = 5.3V, I_{OUT} = 1 to 100mA	-	120	160	mV
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$	V_{IN} = 4.3 to 12.0V	-	0.1	-	%/V

+5.0V Version (C_{IN} = C_O = 0.1µF, T_a = 25°C)

PARAMETER	SYMBOL	CONDITION	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	-	0.3	0.6	V
Input Voltage	V_{IN}		-	-	14	V
Operating Current	I_{DD1}	V_{IN} = 7.0V	-	20	30	µA
Load Regulation	$\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$	V_{IN} = 7.0V, I_{OUT} = 1 to 100mA	-	120	160	mV
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$	V_{IN} = 6.0 to 12.0V	-	0.1	-	%/V

■ MEASUREMENT CIRCUIT



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Üretici parça numarasını yazın; stok ve fiyatı hemen görün.

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Entegreden kapasitöre tüm elektronik komponent kategorileri.

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