

SUPER LOW OPERATING CURRENT
C-MOS 3-TERMINAL POSITIVE VOLTAGE REGULATOR

■ GENERAL DESCRIPTION

The NJU7200 series is a super low operating current C-MOS 3-terminal positive voltage regulator which contains internal accurate voltage reference, error amplifier, control transistor and output voltage setting resistor.

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

The NJU7200 series is suitable for battery operated items and battery back-up systems because of low operating current and low dropout voltage.

■ PACKAGE OUTLINE



NJU7200L



NJU7200U

■ FEATURES

- Super Low Operating Current 0.9uA typ @V_{OUT}=1.0V
- Wide Range of Output Voltage Setting V_{OUT}=1.0~8.0V
- Low Dropout Voltage ΔV_{IO}<0.18V @V_{OUT}=1.0V, I_O=0.5mA
- Small Temperature Coefficient
- Package Outline TO-92/SOT-89
- C-MOS Technology

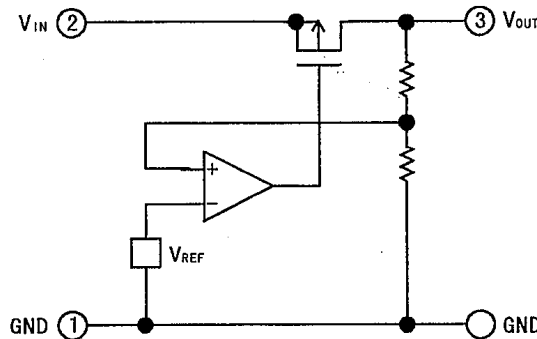
■ OUTPUT VOLTAGE LINE-UP

| Output Voltage | TO-92 Type | SOT-89 Type | Output Voltage | TO-92 Type | SOT-89 Type |
|----------------|-------------|-------------|----------------|-------------|-------------|
| +1.0V | NJU7200L10 | NJU7200U10 | +3.2V | NJU7200L32 | NJU7200U32 |
| +1.1V | NJU7200L11 | NJU7200U11 | +3.3V | NJU7200L33 | NJU7200U33 |
| +1.2V | NJU7200L12 | NJU7200U12 | +3.5V | NJU7200L35 | NJU7200U35 |
| +1.5V | NJU7200L15 | NJU7200U15 | +4.0V | NJU7200L40 | NJU7200U40 |
| +2.1V | NJU7200L21* | NJU7200U21* | +4.5V | NJU7200L45* | NJU7200U45* |
| +2.5V | NJU7200L25 | NJU7200U25 | +4.8V | NJU7200L48 | NJU7200U48 |
| +2.6V | NJU7200L26 | NJU7200U26 | +5.0V | NJU7200L50 | NJU7200U50 |
| +2.7V | NJU7200L27 | NJU7200U27 | +5.2V | NJU7200L52* | NJU7200U52* |
| +2.9V | NJU7200L29 | NJU7200U29 | +5.5V | NJU7200L55 | NJU7200U55 |
| +3.0V | NJU7200L30 | NJU7200U30 | +8.0V | NJU7200L80* | NJU7200U80* |

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

Note2) * : Planning products.

■ TERMINAL DESCRIPTION



■ TERMINAL DESCRIPTION

| No. | Description |
|-----|-------------|
| 1 | GND |
| 2 | Input |
| 3 | Output |



■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|-----------------------|------------------|--------------------------------|------|
| Input Voltage | V _{IN} | 14 | V |
| Output Voltage | V _{OUT} | GND-0.3 ~ V _{IN} +0.3 | V |
| Output Current | I _{OUT} | 100 | mA |
| Power Dissipation | P _D | 500 (TO-92) 300 (SOT-89) | mW |
| Operating Temperature | Topr | - 25 ~ + 75 | °C |
| Storage Temperature | Tstg | - 40 ~ +125 | °C |

■ ELECTRICAL CHARACTERISTICS

+1.0V Version

(C_{IN}=C_O=0.1uF, Ta=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | UNIT |
|-------------------|--|---|------|------|------|------|
| Output Voltage | V _{OUT} | V _{IN} =3.0V, I _{OUT} =5mA | 0.95 | 1.00 | 1.05 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =0.5mA | — | 0.06 | 0.18 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =3.0V | — | 0.90 | 2.40 | uA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =3.0V, I _{OUT} =1~15mA | — | 10 | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =1.5~12V | — | 0.10 | — | %/V |

+1.1V Version

(C_{IN}=C_O=0.1uF, Ta=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | UNIT |
|-------------------|--|---|-------|-------|-------|------|
| Output Voltage | V _{OUT} | V _{IN} =3.0V, I _{OUT} =5mA | 1.045 | 1.100 | 1.155 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =0.5mA | — | 0.06 | 0.18 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =3.0V | — | 0.90 | 2.40 | uA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =3.0V, I _{OUT} =1~15mA | — | 10 | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =1.5~12V | — | 0.10 | — | %/V |

+1.2V Version

(C_{IN}=C_O=0.1uF, Ta=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | UNIT |
|-------------------|--|---|------|------|------|------|
| Output Voltage | V _{OUT} | V _{IN} =3.0V, I _{OUT} =5mA | 1.14 | 1.20 | 1.26 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =0.5mA | — | 0.06 | 0.18 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =3.0V | — | 0.90 | 2.40 | uA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =3.0V, I _{OUT} =1~15mA | — | 10 | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =1.5~12V | — | 0.10 | — | %/V |

(+1.5V Version) (C_{IN}=C_O=0.1uF, Ta=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|---|-------|-------|-------|-----|
| Output Voltage | V _{OUT} | V _{IN} =3.0V, I _{OUT} =5mA | 1.425 | 1.500 | 1.575 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =0.5mA | — | 0.04 | 0.12 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =3.0V | — | 0.90 | 2.40 | uA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =3.0V, I _{OUT} =1~15mA | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =1.8~12V | — | 0.10 | — | %/V |

(+2.1V Version) (C_{IN}=C_O=0.1uF, Ta=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|---|-------|-------|-------|-----|
| Output Voltage | V _{OUT} | V _{IN} =4.1V, I _{OUT} =5mA | 1.995 | 2.100 | 2.205 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =0.5mA | — | 0.04 | 0.12 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =4.1V | — | 0.90 | 2.40 | uA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =4.1V, I _{OUT} =1~20mA | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =2.5~12V | — | 0.10 | — | %/V |

(+2.5V Version) (C_{IN}=C_O=0.1uF, Ta=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|---|-------|-------|-------|-----|
| Output Voltage | V _{OUT} | V _{IN} =4.5V, I _{OUT} =10mA | 2.375 | 2.500 | 2.625 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =10mA | — | 0.45 | 1.20 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =4.5V | — | 1.0 | 2.4 | uA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =4.5V, I _{OUT} =1~20mA | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =3.5~12V | — | 0.10 | — | %/V |

(+2.6V Version) (C_{IN}=C_O=0.1uF, Ta=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|---|------|------|------|-----|
| Output Voltage | V _{OUT} | V _{IN} =4.6V, I _{OUT} =10mA | 2.47 | 2.60 | 2.73 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =10mA | — | 0.45 | 1.20 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =4.6V | — | 1.0 | 2.4 | uA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =4.6V, I _{OUT} =1~20mA | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =3.6~12V | — | 0.10 | — | %/V |

(+2.7V Version) (C_{IN}=C_O=0.1uF, Ta=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|---|-------|-------|-------|-----|
| Output Voltage | V _{OUT} | V _{IN} =4.7V, I _{OUT} =10mA | 2.565 | 2.700 | 2.835 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =10mA | — | 0.4 | 1.0 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =4.7V | — | 1.0 | 2.4 | uA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =4.7V, I _{OUT} =1~20mA | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =3.7~12V | — | 0.10 | — | %/V |

NJU7200 Series

+2.9V Version

($C_{IN}=C_O=0.1\mu F, T_a=25^\circ C$)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|-----------------------------------|-------|-------|-------|---------|
| Output Voltage | V_{OUT} | $V_{IN}=4.9V, I_{OUT}=10mA$ | 2.755 | 2.900 | 3.045 | V |
| Dropout Voltage | ΔV_{IO} | $I_{OUT}=10mA$ | — | 0.4 | 1.0 | V |
| Input Voltage | V_{IN} | | — | — | 12 | V |
| Operating Current | I_Q | $V_{IN}=4.9V$ | — | 1.0 | 2.4 | μA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | $V_{IN}=4.9V, I_{OUT}=1\sim 20mA$ | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | $V_{IN}=3.9\sim 12V$ | — | 0.10 | — | %/V |

+3.0V Version

($C_{IN}=C_O=0.1\mu F, T_a=25^\circ C$)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|-----------------------------------|------|------|------|---------|
| Output Voltage | V_{OUT} | $V_{IN}=5.0V, I_{OUT}=10mA$ | 2.85 | 3.00 | 3.15 | V |
| Dropout Voltage | ΔV_{IO} | $I_{OUT}=10mA$ | — | 0.36 | 0.85 | V |
| Input Voltage | V_{IN} | | — | — | 12 | V |
| Operating Current | I_Q | $V_{IN}=5.0V$ | — | 1.0 | 2.4 | μA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | $V_{IN}=5.0V, I_{OUT}=1\sim 20mA$ | — | 15 | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | $V_{IN}=4.0\sim 12V$ | — | 0.10 | — | %/V |

+3.2V Version

($C_{IN}=C_O=0.1\mu F, T_a=25^\circ C$)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|-----------------------------------|------|------|------|---------|
| Output Voltage | V_{OUT} | $V_{IN}=5.2V, I_{OUT}=10mA$ | 3.04 | 3.20 | 3.36 | V |
| Dropout Voltage | ΔV_{IO} | $I_{OUT}=10mA$ | — | 0.33 | 0.80 | V |
| Input Voltage | V_{IN} | | — | — | 12 | V |
| Operating Current | I_Q | $V_{IN}=5.2V$ | — | 1.1 | 2.4 | μA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | $V_{IN}=5.2V, I_{OUT}=1\sim 20mA$ | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | $V_{IN}=4.2\sim 12V$ | — | 0.10 | — | %/V |

+3.3V Version

($C_{IN}=C_O=0.1\mu F, T_a=25^\circ C$)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|-----------------------------------|-------|-------|-------|---------|
| Output Voltage | V_{OUT} | $V_{IN}=5.3V, I_{OUT}=10mA$ | 3.135 | 3.300 | 3.465 | V |
| Dropout Voltage | ΔV_{IO} | $I_{OUT}=10mA$ | — | 0.33 | 0.80 | V |
| Input Voltage | V_{IN} | | — | — | 12 | V |
| Operating Current | I_Q | $V_{IN}=5.3V$ | — | 1.1 | 2.4 | μA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | $V_{IN}=5.3V, I_{OUT}=1\sim 20mA$ | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | $V_{IN}=4.3\sim 12V$ | — | 0.10 | — | %/V |

+3.5V Version

($C_{IN}=C_O=0.1\mu F, T_a=25^\circ C$)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|-----------------------------------|-------|-------|-------|---------|
| Output Voltage | V_{OUT} | $V_{IN}=5.5V, I_{OUT}=10mA$ | 3.325 | 3.500 | 3.675 | V |
| Dropout Voltage | ΔV_{IO} | $I_{OUT}=10mA$ | — | 0.30 | 0.70 | V |
| Input Voltage | V_{IN} | | — | — | 12 | V |
| Operating Current | I_Q | $V_{IN}=5.5V$ | — | 1.1 | 2.4 | μA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | $V_{IN}=5.5V, I_{OUT}=1\sim 20mA$ | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | $V_{IN}=4.5\sim 12V$ | — | 0.10 | — | %/V |

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+4.0V Version (C_{IN}=C_O=0.1μF, T_a=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|---|------|------|------|-----|
| Output Voltage | V _{OUT} | V _{IN} =6.0V, I _{OUT} =30mA | 3.80 | 4.00 | 4.20 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =10mA | — | 0.26 | 0.60 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =6.0V | — | 1.1 | 2.4 | μA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =6.0V, I _{OUT} =1~40mA | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =5.0~12V | — | 0.10 | — | %/V |

+4.5V Version (C_{IN}=C_O=0.1μF, T_a=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|---|-------|-------|-------|-----|
| Output Voltage | V _{OUT} | V _{IN} =6.5V, I _{OUT} =30mA | 4.275 | 4.500 | 4.725 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =10mA | — | 0.22 | 0.50 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =6.5V | — | 1.2 | 2.4 | μA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =6.5V, I _{OUT} =1~40mA | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =5.5~12V | — | 0.10 | — | %/V |

+4.8V Version (C_{IN}=C_O=0.1μF, T_a=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|---|------|------|------|-----|
| Output Voltage | V _{OUT} | V _{IN} =6.8V, I _{OUT} =30mA | 4.56 | 4.80 | 5.04 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =10mA | — | 0.22 | 0.50 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =6.8V | — | 1.2 | 2.4 | μA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =6.8V, I _{OUT} =1~40mA | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =5.8~12V | — | 0.10 | — | %/V |

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

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|---|------|------|------|-----|
| Output Voltage | V _{OUT} | V _{IN} =7.0V, I _{OUT} =30mA | 4.75 | 5.00 | 5.25 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =10mA | — | 0.22 | 0.45 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =7.0V | — | 1.2 | 2.4 | μA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =7.0V, I _{OUT} =1~40mA | — | 35 | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =6.0~12V | — | 0.10 | — | %/V |

+5.2V Version (C_{IN}=C_O=0.1μF, T_a=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|---|------|------|------|-----|
| Output Voltage | V _{OUT} | V _{IN} =7.2V, I _{OUT} =30mA | 4.94 | 5.20 | 5.46 | V |
| Dropout Voltage | ΔV _{IO} | I _{OUT} =10mA | — | 0.20 | 0.45 | V |
| Input Voltage | V _{IN} | | — | — | 12 | V |
| Operating Current | I _Q | V _{IN} =7.2V | — | 1.3 | 2.4 | μA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | V _{IN} =7.2V, I _{OUT} =1~40mA | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | V _{IN} =6.2~12V | — | 0.10 | — | %/V |

NJU7200 Series

+5.5V Version

($C_{IN}=C_O=0.1\mu F, T_a=25^\circ C$)

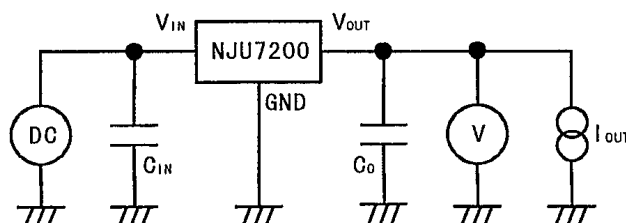
| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|-----------------------------------|-------|-------|-------|---------|
| Output Voltage | V_{OUT} | $V_{IN}=7.5V, I_{OUT}=30mA$ | 5.225 | 5.500 | 5.775 | V |
| Dropout Voltage | ΔV_{IO} | $I_{OUT}=10mA$ | — | 0.20 | 0.40 | V |
| Input Voltage | V_{IN} | | — | — | 12 | V |
| Operating Current | I_Q | $V_{IN}=7.5V$ | — | 1.3 | 2.4 | μA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | $V_{IN}=7.5V, I_{OUT}=1\sim 40mA$ | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | $V_{IN}=6.5\sim 12V$ | — | 0.10 | — | %/V |

+8.0V Version

($C_{IN}=C_O=0.1\mu F, T_a=25^\circ C$)

| PARAMETER | SYMBOL | CONDITION | MIN | TYP | MAX | 單位 |
|-------------------|--|------------------------------------|------|------|------|---------|
| Output Voltage | V_{OUT} | $V_{IN}=10.0V, I_{OUT}=30mA$ | 7.60 | 8.00 | 8.40 | V |
| Dropout Voltage | ΔV_{IO} | $I_{OUT}=10mA$ | — | 0.20 | 0.40 | V |
| Input Voltage | V_{IN} | | — | — | 12 | V |
| Operating Current | I_Q | $V_{IN}=10.0V$ | — | 2.0 | 4.0 | μA |
| Load Regulation | $\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ | $V_{IN}=10.0V, I_{OUT}=1\sim 40mA$ | — | — | 120 | mV |
| Line Regulation | $\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$ | $V_{IN}=9.0\sim 12V$ | — | 0.10 | — | %/V |

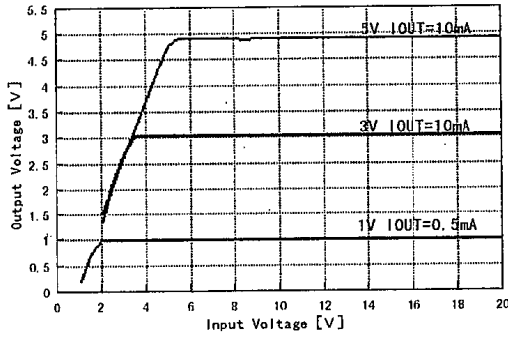
MEASUREMENT CIRCUIT



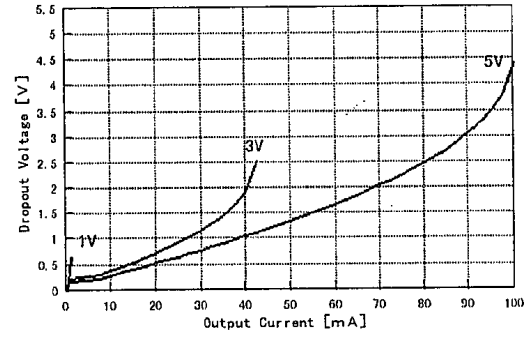
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TYPICAL CHARACTERISTICS

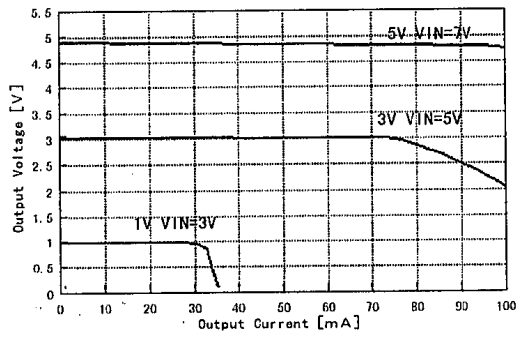
Output Voltage vs. Input Voltage



Dropout Voltage vs. Output Current



Output Voltage vs. Output Current



NJU7200 Series

MEMO

[CAUTION]

The specifications on this databook are only given for information, without any guarantee as regards either mistakes or omissions. The application circuits in this databook are described only to show representative usages of the product and not intended for the guarantee or permission of any right including the industrial rights.

New Japan Radio Co., Ltd.