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## NTE1881 Integrated Circuit Module, 3 Output Positive Voltage Regulator for VCR

**Features:**

- 3 Outputs
- Output Voltage Select Function

**Absolute Maximum Ratings:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

|  |  |                |
|--|--|----------------|
| Maximum DC Input Voltage, $V_{IN}$ (DC) Max            |  |                |
| $V_{O1}, V_{O2}$ .....                                 |  | 30V            |
| $V_{O3}$ .....   |  | 20V            |
| Maximum Average Output Current, $I_O$ Max              |  |                |
| $V_{O1}$ .....   |  | 1.5A           |
| $V_{O2}$ .....   |  | 1.5A           |
| $V_{O3}$ .....   |  | 1.0A           |
| Maximum Peak Output Current (Note 1), $I_O$ Max        |  |                |
| $V_{O1}$ .....   |  | 2.5A           |
| $V_{O2}$ .....   |  | 2.5A           |
| $V_{O3}$ .....   |  | 2A             |
| Operating Case Temperature, $T_C$ Max .....            |  | +105°C         |
| Junction Temperature, $T_J$ Max .....                  |  | +150°C         |
| Storage Temperature Range, $T_{stg}$ .....             |  | -30° to +105°C |
| Thermal Resistance, Junction-to-Case, $R_{thJC}$ ..... |  | 4.5°C/W        |

Note 1. Peak Current: For 1.0sec Max.

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

| Parameter                               | Test Conditions     | V <sub>O1</sub> | V <sub>O2</sub> | V <sub>O3</sub> | Unit                  |
|---|---------------------|-----------------|-----------------|-----------------|-----------------------|
| Output Voltage Setting                  | Condition 1, Note 2 | 12.0 ±0.3       | 12.0±0.1        | 5.3±0.1         | V                     |
| Output Cutoff Residual Voltage          | Condition 1, Note 3 | 12.0 ±0.3       | 12.0±0.1        | 0.1             | V Max                 |
| Ripple Voltage                          | Condition 2         | 20              | 5               | 5               | mV <sub>p-p</sub> Max |
| Temperature Coefficient                 | Condition 1         | 0.02            | 0.02            | 0.02            | %/°C Max              |
| Input Regulation                        | Condition 3         | 80              | 35              | 35              | mV/V Max              |
| Load Regulation                         | Condition 4         | 150             | 40              | 40              | mV/A Max              |
| Minimum Input-Output Voltage Difference | Condition 5         | 1.5             | 1.5             | 1.2             | V Max                 |

Note 2. Measurement must be made within 1 to 2 sec. after input switch is ON.

Note 3. When Pin2 is at High level (3V to 15V), V<sub>O3</sub> is turned ON.

When Pin2 is at Low level (0.6V or less), V<sub>O3</sub> is turned OFF.

**Test Conditions:**

Condition 1:  $V_{IN}$  (DC) 1 = 16V,  $V_{IN}$  (DC) 2 = 9V,  $I_{O1} = I_{O2} = 1A$ ,  $I_{O3} = 0.5A$ , ( $I_{B1} = I_{B2} = 2mA$ )

Condition 2:  $V_{IN}$  (DC) 1 = 16V,  $V_{IN}$  (DC) 2 = 9V,  $I_{O1} = I_{O2} = 1A$ ,  $I_{O3} = 0.5A$ , Input Ripple Voltage =  $1.5V_{P-P}$

Condition 3:  $V_{IN}$  (DC) 1 = 14.5V to 22V,  $V_{IN}$  (DC) 2 = 6.6V to 11V,  $I_{O1} = I_{O2} = 1A$ ,  $I_{O3} = 0.5A$

Condition 4:  $V_{IN}$  (DC) 1 = 16V,  $V_{IN}$  (DC) 2 = 9V,  $I_{O1} = 0.3A$  to 1A,  $I_{O2} = 0.3A$  to 1A,  $I_{O3} = 0.1A$  to 1A

Condition 5:  $I_{O1} = I_{O2} = 1A$ ,  $I_{O3} = 0.5A$ ,  $I_{B1} = I_{B2} = 2mA$

**Pin Connection Diagram**  
(Front View)

