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NTE7038 Integrated Circuit Module, 5 Output Positive Voltage Regulator for VCR

Features:

- 5 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	30V
Maximum Average Output Current, I_O Max	1.0A
Maximum Peak Output Current (0.2sec max)), I_O Max	
V_{O1}, V_{O3}	2.5A
V_{O2}	2.0A
V_{O4}, V_{O5}	1.5A
Operating Case Temperature, T_C Max	$+105^\circ\text{C}$
Junction Temperature, T_J Max	$+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-30° to $+105^\circ\text{C}$
Thermal Resistance, Junction-to-Case, R_{thJC}	4.5°C/W

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

Parameter	Test Conditions	V_{O1}	V_{O2}	V_{O3}	V_{O4}	V_{O5}	Unit
Output Voltage Setting	Condition 1	13.0 ± 0.2	12.2 ± 0.2	6.0 ± 0.2	5.1 ± 0.2	5.1 ± 0.2	V
	Condition 1, Note 1	0.1	0.1	5.97 ± 0.2	0.1	0.1	V Max
Ripple Voltage	Condition 1	5	5	2	2	2	mV_{P-P} Max
Temperature Coefficient	Condition 1	0.02	0.02	0.02	0.02	0.02	$\%/^\circ\text{C}$ Max
Line Regulation	Condition 2	12	12	20	15	15	mV/V Max
	Condition 3	1	1	1	1	3	mV/V Max
Load Regulation	Condition 4	40	40	25	40	700	mV/A Max
Minimum Input-Output Voltage Difference	Condition 5	1.2	2.0	1.2	1.8	1.8	V Max

Note 1. External setting available.

Test Conditions:

- Condition 1: $V_B = 30V$, Ripple = $10mV_{P-P}$
 V_{IN} (DC) 1 = $17V$, $I_{O1} = I_{O2} = I_{O3} = 0.5A$, Input Ripple Voltage = $1.5V_{P-P}$
 V_{IN} (DC) 2 = $14V$, $I_{O4} = 0.3A$, $I_{O5} = 0.1A$, Input Ripple Voltage = $1.5V_{P-P}$
- Condition 2: $V_B = 30V \pm 4V$
 V_{IN} (DC) 1 = $17V$, $I_{O1} = I_{O2} = I_{O3} = 0.5A$
 V_{IN} (DC) 2 = $14V$, $I_{O4} = 0.3A$, $I_{O5} = 0.1A$
- Condition 3: $V_B = 30V$
 V_{IN} (DC) 1 = $14.5V$ to $22V$, $I_{O1} = I_{O2} = I_{O3} = 0.5A$
 V_{IN} (DC) 2 = $7.5V$ to $17V$, $I_{O4} = 0.3A$, $I_{O5} = 0.1A$
- Condition 4: $V_B = 30V$
 V_{IN} (DC) 1 = $17V$, $I_{O1} = I_{O2} = I_{O3} = 0$ to $1A$
 V_{IN} (DC) 2 = $14V$, $I_{O4} = 0$ to $0.5A$, $I_{O5} = 70mA$ to $200mA$
- Condition 5: $V_B = 30V$, $I_{O1} = I_{O2} = I_{O3} = 1A$, $I_{O4} = 0.3A$, $I_{O5} = 0.1A$

Pin Connection Diagram

(Front View)

