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NTE1872 Integrated Circuit Module, 4 Output Positive Voltage Regulator for VCR

Features:

- 4 Outputs
- Output Voltage Select Function

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

Maximum DC Input Voltage, V_{IN} (DC) Max	30V
Maximum Average Output Current, I_O Max	
V_{O1}	1.0A
V_{O2}	0.5A
V_{O3}	1.0A
V_{O4}	1.0A
Maximum Peak Output Current (Note 1), I_O Max	
V_{O1}	2.5A
V_{O2}	1.0A
V_{O3}	2.5A
V_{O4}	2.5A
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

Note 1. Peak Current: For 0.2sec Max.

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

Parameter	Test Conditions	V_{O1}	V_{O2}	V_{O3}	V_{O4}	Unit
Output Voltage Setting	Condition 1, A, Note 2	15.0 ± 0.3	5.8 ± 0.2	12.0 ± 0.2	5.1 ± 0.1	V
	Condition 1, B, Note 2	13.0 ± 0.3	5.8 ± 0.2	12.0 ± 0.2	5.1 ± 0.1	V
Output Cutoff Residual Voltage	Condition 1, Note 3	0.1	5.8 ± 0.2	0.1	0.1	V Max
Ripple Voltage	Condition 1, Note 4	30	10	3	3	mV_{p-p} Max
Temperature Coefficient	Condition 1	0.02	0.02	0.02	0.02	$\% / ^\circ\text{C}$ Max
Input Regulation	Condition 2	–	20	15	1	mV/V Max
	Condition 3	30	1	1	1	
Load Regulation	Condition 4	35	45	35	45	mV/A Max
Minimum Input-Output Voltage Difference	Condition 5	0.6	1.2	1.2	1.8	V Max

Test Conditions:

- Condition 1: $V_B = 33V$, Ripple = $10mV_{p-p}$, $V_{IN} (DC) 1 = 18V$, $V_{IN} (DC) 2 = 10V$, Input Ripple Voltage = $1.5V_{p-p}$,
 $I_{O2} = I_{O3} = I_{O4} = 0.5A$
Condition A: $I_{O1} = 1.15A$
Condition B: $I_{O1} = 1A$
- Condition 2: $V_B = 33V \pm 5V$, $V_{IN} (DC) 1 = 18V$, $V_{IN} (DC) 2 = 10V$, $I_{O2} = I_{O3} = I_{O4} = 0.5A$,
Condition B: $I_{O1} = 1A$
- Condition 3: $V_B = 33V$, $V_{IN} (DC) 1 = 14V$ to $22V$, $V_{IN} (DC) 2 = 7.2V$ to $14V$, $I_{O2} = I_{O3} = I_{O4} = 0.5A$,
Condition B: $I_{O1} = 1A$
- Condition 4: $V_B = 33V$, $V_B 2 = 33V$, $V_{IN} (DC) 1 = 18V$, $V_{IN} (DC) 2 = 10V$, $I_{O2} = 0$ to $0.5A$
Condition B: $I_{O1}, I_{O3}, I_{O4} = 0$ to $1A$
- Condition 5: $V_B = 33V$, $I_{O2} = I_{O3} = I_{O4} = 0.5A$,
Condition B: $I_{O1} = 1A$

Notes:

- Note 2. Pin A: Pin12, Pin15 short
Pin B: Pin12 open
- Note 3. Cutoff Switch of connection circuit
- Note 4. V_{O1} output noise

