ELECTRONICS, INC.
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NTE7028
Integrated Circuit
Module, 3 Output Positive Voltage Regulator for VCR

Features:
- 3 Outputs
- Cutoff Function

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Maximum DC Input Voltage, V_{IN} (DC) Max 30V
Maximum Average Output Current, I_O Max
- V_O1 . . . . . 1.0A
- V_O2 . . . . . 1.0A
- V_O3 . . . . . 1.0A

Maximum Peak Output Current (Note 1), I_O Max
- V_O1 . . . . . 2.0A
- V_O2 . . . . . 2.5A
- V_O3 . . . . . 2.0A

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 0.2sec Max.

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Test Conditions	V_O1	V_O2	V_O3	Unit
Output Voltage Setting	Condition 1, Note 2	12.8 ±0.3	12.1 ±0.1	5.2 ±0.1	V
Ripple Voltage	Condition 1	60	3	3	$mV_{p–p}$ Max
Output Cutoff	Condition 1, Note 3	0.1	0.1	0.1	V Max
Temperature Coefficient	Condition 1	0.03	0.02	0.02	%/°C Max
Line Regulation	Condition 2	15	–	–	mV/V Max
	Condition 3	20	2	2	
Load Regulation	Condition 4	200	45	10	mV/A Max
Minimum Input–Output Voltage Difference	Condition 5	1.2	1.2	1.2	v Max

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

Note 3. When Pin11 is at High level (3V to 15V), VO1, VO2, and VO3 are turned ON.
When Pin11 is at Low level (0.6V or less), VO1, VO2, and VO3 are turned OFF.

Test Conditions:

Condition 1: V_B 1 = 50V, V_{IN} (DC) 1 = 17V, V_{IN} (DC) 2 = 9V, Input Ripple Voltage = $1.5V_{p-p}$
V_B 2 = 33V, Input Ripple Voltage = $10mV_{p-p}$
I_O1 = 0.5A. I_O2 = 0.5A, I_O3 = 0.5A

Condition 2: V_B 1 = 50V ±5V, V_B 2 = 33V, V_{IN} (DC) 1 = 17V, V_{IN} (DC) 2 = 9V
I_O1 = 0.5A. I_O2 = 0.5A, I_O3 = 0.5A

Condition 3: V_B 1 = 50V, V_B 2 = 33V, V_{IN} (DC) 1 = 14.3V to 21V, V_{IN} (DC) 2 = 6.5V to 11.5V
I_O1 = 0.5A. I_O2 = 0.5A, I_O3 = 0.5A

Condition 4: V_B 1 = 50V, V_B 2 = 33V, V_{IN} (DC) 1 = 17V, V_{IN} (DC) 2 = 9V
I_O1 = 0.3A to 1A, I_O2 = 0.1A to 1A, I_O3 = 0.1A to 1A

Condition 5: V_B 1 = 50V, V_B 2 = 33V, I_O1 = 0.5A. I_O2 = 0.5A, I_O3 = 0.5A

Pin Connection Diagram
(Front View)