

NTE1883 Integrated Circuit Module, 3 Output Positive Voltage Regulator for VCR

Features:

- 3 Outputs
- Cutoff 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}, V_{O2} 0.8A

V_{O3} 1.0A

Maximum Peak Output Current (Note 1), I_O Max

V_{O1} 1.0A

V_{O2} 1.5A

V_{O3} 2.0A

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} 7.0°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}	Unit
Output Voltage Setting	Condition 1, Note 2	12.1 ± 0.1	12.1 ± 0.2	5.3 ± 0.2	V
Output Cutoff Residual Voltage	Condition 1, Note 3	12.1 ± 0.13	0.1	0.1	V Max
Ripple Voltage	Condition 6	5	5	5	mV _{p-p} Max
Temperature Coefficient	Condition 1	0.02	0.02	0.025	%/ $^\circ\text{C}$ Max
Line Regulation	Condition 2	10	10	2	mV/V Max
	Condition 3	2	2	2	
Load Regulation	Condition 4	50	300	50	mV/A Max
Minimum Input-Output Voltage Difference	Condition 5	1.2	—	1.2	V Max

Test Conditions:

- Condition 1: $V_B = 45V$, $V_{IN} (DC) 1 = 16V$, $V_{IN} (DC) 2 = 9V$, $I_{O1} = 0.2A$, $I_{O2} = 0.5A$, $I_{O3} = 0.5A$
Condition 2: $V_B = 45V \pm 5V$, $V_{IN} (DC) 1 = 16V$, $V_{IN} (DC) 2 = 9V$, $I_{O1} = 0.2A$, $I_{O2} = 0.5A$, $I_{O3} = 0.5A$
Condition 3: $V_B = 45V$, $V_{IN} (DC) 1 = 13.5V$ to $18.5V$, $V_{IN} (DC) 2 = 6.7V$ to $11.3V$, $I_{O1} = 0.2A$, $I_{O2} = 0.5A$, $I_{O3} = 0.5A$
Condition 4: $V_B = 45V$, $V_{IN} (DC) 1 = 16V$, $V_{IN} (DC) 2 = 9V$, $I_{O1} = 0$ to $0.5A$, $I_{O2} = 0$ to $0.6A$, $I_{O3} = 0.1A$ to $1.0A$,
Condition 5: $V_B = 45V$, $I_{O1} = I_{O3} = 0.5A$, $I_{O2} = 0$, $I_{B1} = 2mA$
Condition 6: $V_B = 45V$, $V_{IN} (DC) 1 = 16V$, $V_{IN} (DC) 2 = 9V$, Input Ripple Voltage = $1.5V_{P-P}$, $I_{O1} = 0.2A$, $I_{O2} = I_{O3} = 0.5A$

Notes:

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

Note 3. When the cutoff pin (Pin2) is at high level (3V to 15V), V_{O2} and V_{O3} are in the OFF state.

Pin Connection Diagram
(Front View)

