

NTE1822 Integrated Circuit Module, 3 Output Positive Voltage Regulator for VCR

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_{O2} 20V

Maximum Average Output Current (Note 1), I_O Max

V_{O1}, V_{O2} 1.5A

V_{O3} 0.5A

Maximum Peak Output Current (Note 1), I_O Max

V_{O1}, V_{O2} 2.5A

V_{O3} 0.5A

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}

V_{O1}, V_{O2} 4.5°C/W

V_{O3} 10°C/W

Note 1. Peak Current: For 1.0sec Max ($V_{IN}(\text{DC})$ 1 = 15.7V, $V_{IN}(\text{DC})$ 2 = 9V)..

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	12.0 ± 0.3	12.0 ± 0.1	5.3 ± 0.1	V
Output Cutoff Function	Note 3	Without	Without	With	
Ripple Voltage	Condition 2	20	5	5	mV _{p-p} Max
Temperature Coefficient	Condition 1	0.02	0.02	0.02	%/ $^\circ\text{C}$ Max
Line Regulation	Condition 3	80	35	2	mV/V Max
Load Regulation	Condition 4	150	40	100	mV/A Max
Minimum Input-Output Voltage Difference	Condition 5	1.5	1.5	2.7	V Max

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

Note 3. 3V or greater: ON, 0.6V or less: OFF.

Test Conditions:

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

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

Condition 3: V_{IN} (DC) 1 = 14.5V to 22V, V_{IN} (DC) 2 = 8.1V to 11V, $I_{O1} = I_{O2} = 1\text{A}$, $I_{O3} = 0.5\text{A}$

Condition 4: V_{IN} (DC) 1 = 16V, V_{IN} (DC) 2 = 9V, $I_{O1} = 0.3\text{A}$ to 1A , $I_{O2} = 0.1\text{A}$ to 1A , $I_{O3} = 0.1\text{A}$ to 0.5A

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

Pin Connection Diagram
(Front View)

