



**ELECTRONICS, INC.**  
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## NTE1867 & NTE1868 Integrated Circuit Hybrid Switching Voltage Regulator

### Features:

- Few External Components Needed
- Conversion Efficiency: 85%
- Accurate Voltage Setting:  $\pm 2\%$
- Low Switching Noise
- Output Voltage Adjustable

### Applications:

- Power Supply Circuits for Electronic Typewriter, Printer, and Copy Machines
- Power Supply for VCR, Personal Wireless Station, and Battery Charger

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

DC Input Voltage, $V_{IN}$ .....	45V
DC Input Current, $I_O$	
Continuous .....	2A
Pulsed .....	3A
Power Dissipation, $P_D$	
$T_C = +25^\circ\text{C}$ .....	75W
$T_C = +100^\circ\text{C}$ .....	15W
Operating Temperature Range, $T_{opr}$ .....	$-20^\circ$ to $+100^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-20^\circ$ to $+100^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
DC Input Voltage Range NTE1867	$V_{IN}$	$I_O = 1A$	18	–	–	V
			19	–	–	V
Output Voltage Setting NTE1867	$V_O$	$V_{IN} = 24V, I_O = 1A$	11.8	12.0	12.2	V
			12.8	13.0	13.2	V
Line Regulation	$\Delta V_{LINE}$	$V_{IN} = 20V$ to $28V, I_O = 1A$	–	–	60	mV
Load Regulation	$\Delta V_{LOAD}$	$V_{IN} = 24V, I_O = 0.5A$ to $1.5A$	–	–	100	mV
Efficiency	$\eta$	$V_{IN} = 24V, I_O = 1A$	–	85	–	%
Ripple Rejection	$R_{REJ}$	$f = 100\text{Hz}$ to $200\text{Hz}$	–	45	–	dB
Oscillating Frequency	$f_{OSC}$	$V_{IN} = 24V, I_O = 1A$	–	25	–	kHz

**Pin Connection Diagram**  
(Front View)

