



ELECTRONICS, INC.
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 BLOOMFIELD, NJ 07003
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NTE1840 & NTE1841 Integrated Circuit Hybrid Switching Voltage Regulator

Features:

- Triple Diffused Transistor Chips Incorporated
- Compact Plastic Package with Industry Standard Reliability
- Output Voltage is Pre-Fixed – No External Adjustment is Required

Absolute Maximum Ratings:

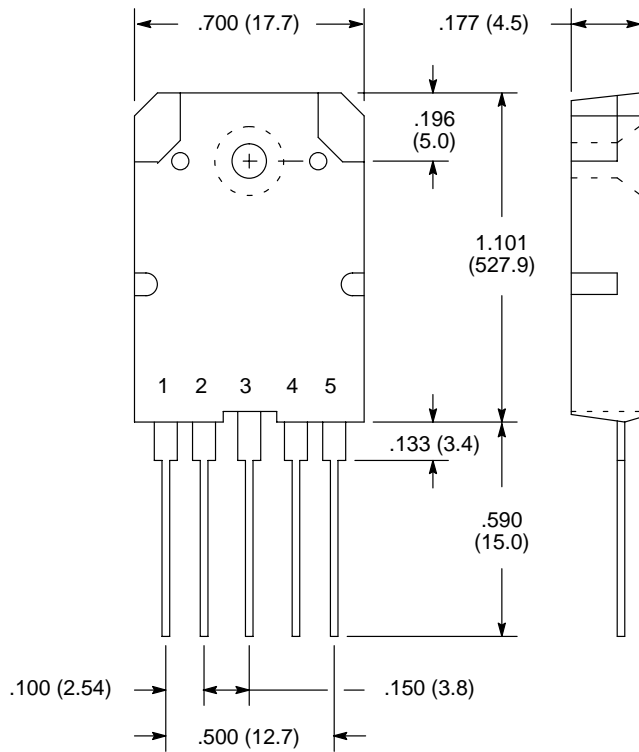
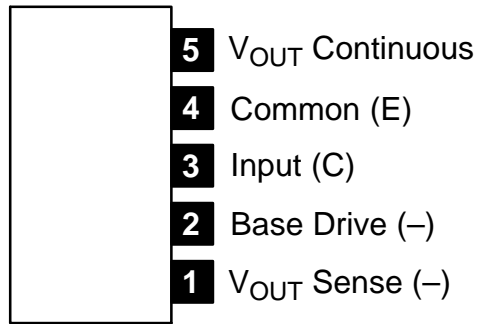
Peak Input Voltage, V_{IN}	550V
Input Current, I_{IN}	
Continuous	6A
Pulse	12A
Power Dissipation ($T_C = +100^\circ\text{C}$), P_D	27W
Maximum Power Transistor Junction Temperature, T_J	+150°C
Operating Temperature Range (T_C), T_{opr}	-20° to +125°C
Storage Temperature Range, T_{stg}	-30° to +125°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Output Voltage	V_O	$V_{IN} = 120\text{V}$, $I_O = 900\text{mA}$	114.5	116.0	117.5	V	
Detecting Voltage (Fixed Output)	V_O	$I_{in} = 7\text{mA}$	NTE1840	41.3	41.8	42.3	V
			NTE1841	42.5	43.0	43.5	V
Load Regulation	Reg_{LOAD}	$V_{IN} = 120\text{V}$, $I_O = 500\text{mA}$ to 900mA	Initial Value ± 1			V	
Output Voltage Temperature Coefficient		$T_C = -20^\circ$ to $+100^\circ\text{C}$, $I_{in} = 7\text{mA}$	-	± 2	-	mV/°C	
Saturation Voltage	$V_{CE(sat)}$	$I_C = 2\text{A}$, $I_B = 400\text{mA}$	-	-	1.0	V	
	$V_{BE(sat)}$	$I_C = 2\text{A}$, $I_B = 400\text{mA}$	-	-	1.5	V	
DC Current Gain	h_{FE}	$I_C = 1\text{A}$, $V_{CE} = 4\text{V}$	10	-	40		
Collector Cutoff Current	I_{CEX}	$V_{CE} = 550\text{V}$, $V_{BE} = -1.5\text{V}$	-	-	1.0	mA	
Power Transistor Thermal Resistance	R_{thJC}	Between Junction and Stem Upper Surface	-	1.8	-	°C/W	
Switching Time	t_s	$I_C = 2\text{A}$, $I_{B1} = 300\text{mA}$, $I_{B2} = 300\text{mA}$, $R_L = 50\Omega$	-	-	12	μs	
	t_f		-	-	7	μs	

Note 1. Recommended Case Temperature: $T_{opr} = +100^\circ\text{C}$.

Pin Connection Diagram
(Front View)



OR

