

NTE1796 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:

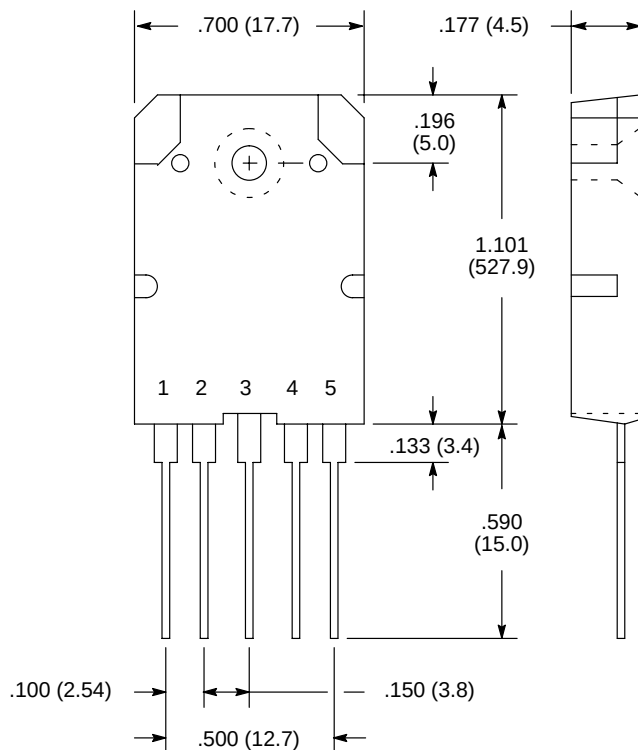
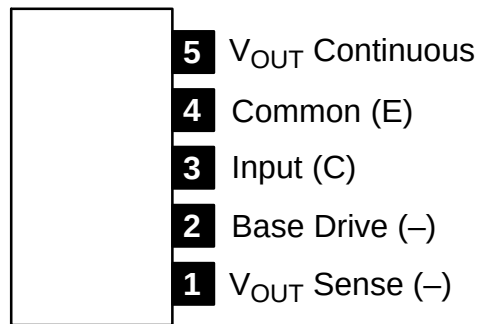
Peak Input Voltage, V_{IN}	900V
Input Current, I_{IN}	
Continuous	6A
Pulse	12A
Power Dissipation ($T_C = +100^\circ\text{C}$), P_D	27W
Maximum Power Transistor Junction Temperature, T_J	+150°C
Operating Temperature Range (T_C), T_{opr}	-20° to +125°C
Storage Temperature Range, T_{stg}	-30° to +125°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_O	$V_{IN} = 220\text{V}$, $I_O = 500\text{mA}$	113.0	114.5	116.0	V
Detecting Voltage (Fixed Output)	V_O	$I_{in} = 7\text{mA}$	41.3	41.8	42.3	V
Load Regulation	Reg_{LOAD}	$V_{IN} = 220\text{V}$, $I_O = 300\text{mA}$ to 500mA	Initial Value ± 2			V
Output Voltage Temperature Coefficient		$T_C = -20^\circ$ to $+100^\circ\text{C}$, $I_{in} = 7\text{mA}$	–	± 2	–	mV/°C
Saturation Voltage	$V_{CE(\text{sat})}$	$I_C = 2\text{A}$, $I_B = 400\text{mA}$	–	–	1.0	V
	$V_{BE(\text{sat})}$	$I_C = 2\text{A}$, $I_B = 400\text{mA}$	–	–	1.5	V
DC Current Gain	h_{FE}	$I_C = 1\text{A}$, $V_{CE} = 4\text{V}$	10	–	30	
Collector Cutoff Current	I_{CEX}	$V_{CE} = 900\text{V}$, $V_{BE} = -1.5\text{V}$	–	–	1.0	mA
Power Transistor Thermal Resistance	R_{thJC}	Between Junction and Stem Upper Surface	–	1.8	–	°C/W
Switching Time	t_s	$I_C = 2\text{A}$, $I_{B1} = 300\text{mA}$, $I_{B2} = 1\text{A}$, $R_L = 50\Omega$	–	–	7	μs
	t_f		–	–	1	μs

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

Pin Connection Diagram
(Front View)



OR

