



**ELECTRONICS, INC.**  
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## NTE1776 thru NTE1778 Integrated Circuit TV Fixed Voltage Regulator

**Features:**

- Triple Diffused Darlington 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, $V_{IN}$ .....	200V
Output Current, $I_O$ .....	1A
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

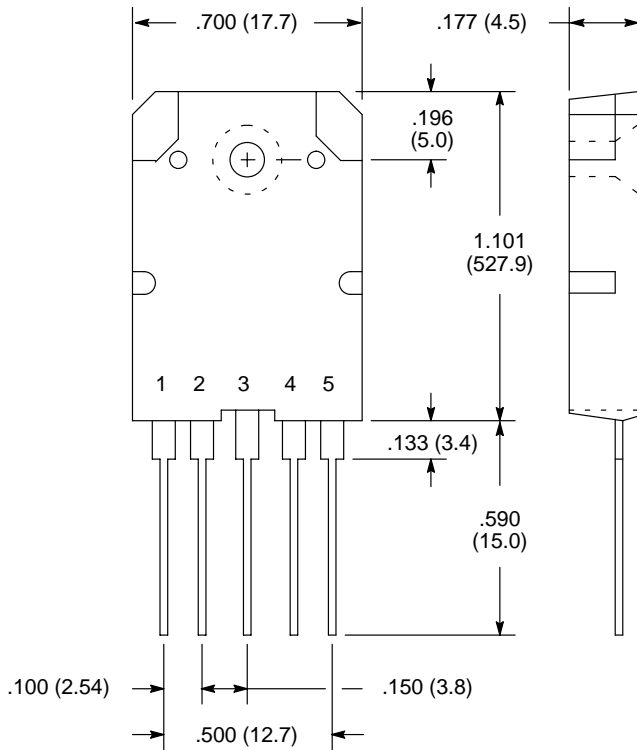
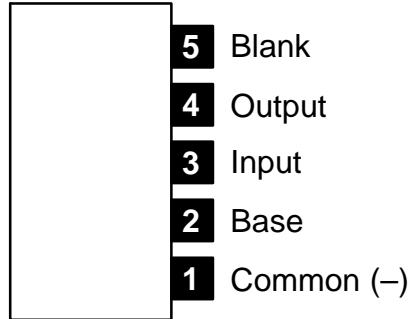
**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage NTE1776	$V_{OUT}$	$V_{AC} = 161\text{V}, I_{In} = 7.2\text{mA}$	122.2	123.0	123.8	V
NTE1777			129.2	130.0	130.8	V
NTE1778			134.2	135.0	135.8	V
Load Regulation	$\Delta V_{LOAD}$	$I_O = 250\text{mA to } 500\text{mA}$	–	$\pm 0.8$	–	V
Output Voltage Temperature Coefficient		$V_{IN} = V_{AC}, I_O = 500\text{mA}, T_C = -20^\circ \text{ to } +100^\circ\text{C}$	–	$\pm 0$	–	mV/°C
Input–Output Saturation Voltage	$V_{CE(sat)}$	$I_C = 1\text{A}, I_B = 10\text{mA}$	–	–	1.5	V
Input–Output Voltage	$V_{CEO}$	$I_{CEO} = 10\text{mA}, I_B = 0$	200	–	–	V
DC Current Gain	$h_{FE}$	$I_C = 1\text{A}, V_{CE} = 4\text{V}$	1500	–	6500	
Power Transistor Thermal Resistance	$R_{thJC}$	Between Junction and Stem Upper Surface	–	1.8	–	°C/W
Input–Output Cutoff Current	$I_{CEO}$	$V_{CE} = 200\text{V}, \text{Pin1, Pin2, and Pin5 Open}$	–	–	100	$\mu\text{A}$
Output–Base Reverse Current Capacity	$I_{EB(S/B)}$	$t = 65\text{msec}$ (Between Emitter–Base)		–	300	$\text{mA}$

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



**Pin Connection Diagram**  
(Front View)



OR

