

**NTE7077**  
**Integrated Circuit**  
**TV Fixed Voltage Regulator**  
**110V ±0.8V, 1A**

**Absolute Maximum Ratings:**

Maximum Peak Input Voltage, $V_{IN}$ .....	200V
Maximum Output Current, $I_O$ .....	1A
Power Dissipation ( $T_C = +100^\circ\text{C}$ ), $P_D$ .....	27W
Power Transistor Junction Temperature, $T_J$ .....	+150°C
Operating Temperature Range (Case Temperature, Note 1), $T_{opr}$ .....	-20° to +125°C
Storage Temperature Range, $T_{stg}$ .....	-30° to +125°C

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

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	$V_O$	$V_{IN} = 134\text{V}$ , $I_O = 500\text{mA}$ , $I_{IN} = 5.9\text{mA}$ , Note 2	109.2	110.0	110.8	V
Line Regulation	$\text{Reg}_{LINE}$	$V_{IN} = 125\text{V}$ to $150\text{V}$ , $I_O = 500\text{mA}$	-	-	Δ2.4	V
Load Regulation	$\text{Reg}_{LOAD}$	$V_{IN} = 134\text{V}$ , $I_O = 250\text{mA}$ to $500\text{mA}$	-	-	Δ0.5	V
Output Voltage Temperature Coefficient		$V_{IN} = 134\text{V}$ , $I_O = 500\text{mA}$ , $T_C = -20^\circ$ to $+100^\circ\text{C}$	-	±0	-	mV/°C
Input Output Saturation Voltage	$V_{EC(sat)}$	$I_C = 1\text{A}$ , $I_B = 10\text{mA}$	-	-	1.5	V
Input Output Breakdown 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	$R_{\theta JC}$	Between Junction and Case	-	1.8	-	°C/W
Input Output Leakage Current	$I_{CEO}$	$V_{CE}$ (Pin3, Pin4) = 200V, Pin1, Pin2, Pin5 Open	-	-	100	μA
Output Base Reverse Current Capacity (Between Emitter-Base)	$I_{EB(S/B)}$	$t = 65\text{ms}$	-	-	300	mA

Note 2. The fixed output voltage is to be measured 5 seconds after the power switch is turned on.

### Pin Connection Diagram (Front View)

