



## NTE1740 thru NTE1743 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:**

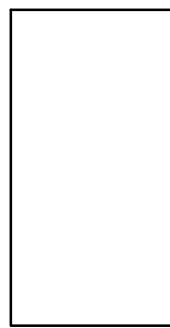
Peak Input Voltage, $V_{IN}$ .....	200V
Output Current, $I_O$ .....	1A
Power Dissipation ( $T_C = +100^\circ\text{C}$ ), $P_D$ .....	40W
Maximum Power Transistor Junction Temperature, $T_J$ .....	+150°C
Operating Temperature Range ( $T_C$ ), $T_{opr}$ .....	-30° to +125°C
Storage Temperature Range, $T_{stg}$ .....	-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 NTE1740	$V_{OUT}$	$V_{AC} = 100V$ , $I_{In} = 6mA$	114	115	116	V
NTE1741		$V_{AC} = 120V$ , $I_{In} = 7mA$	124	125	126	V
NTE1742			129	130	131	V
NTE1743			134	135	136	V
Load Regulation	$\Delta V_{LOAD}$	$I_O = 250mA$ to $500mA$	–	±1	–	V
Output Voltage Temperature Coefficient		$V_{IN} = V_{AC}$ , $I_O = 500mA$ , $T_C = -20^\circ$ to $+100^\circ\text{C}$	–	7	–	mV/°C
Input–Output Saturation Voltage	$V_{CE(sat)}$	$I_C = 1A$ , $I_B = 0$	–	–	1.5	V
Input–Output Voltage	$V_{CEO}$	$I_{CEO} = 10mA$ , $I_B = 0$	200	–	–	V
DC Current Gain	$h_{FE}$	$I_C = 1A$ , $V_{CE} = 4V$	1500	–	6500	
Overload Capacity	$T_{S/B}$	$V_{CE} = 100V$ , $I_C = 1A$	1.0	–	–	sec
Power Transistor Thermal Resistance	$R_{thJC}$	Between Junction and Stem Upper Surface	–	1.25	–	°C/W
Input–Output Cutoff Current	$I_{CEO}$	$V_{CE} = 200V$ , Open (Between Pin1 & Pin2)	–	–	100	µA
Output–Base Reverse Current Capacity	$I_{EB(S/B)}$	$t = 65\text{msec}$ (Between Emitter–Base)	300	–	–	mA

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

**Pin Connection Diagram**  
(Front View)



- 5** No Pin
- 4** Output
- 3** Common (-)
- 2** Base
- 1** Input/Case

