



**ELECTRONICS, INC.**  
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## 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,  $T_J$  .....  $+150^\circ\text{C}$   
 Operating Temperature Range ( $T_C$ ),  $T_{opr}$  .....  $-30^\circ$  to  $+125^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-30^\circ$  to  $+125^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage NTE1740	$V_{OUT}$	$V_{AC} = 100\text{V}, I_{In} = 6\text{mA}$	114	115	116	V
NTE1741			124	125	126	V
NTE1742			129	130	131	V
NTE1743			134	135	136	V
Load Regulation	$\Delta V_{LOAD}$	$I_O = 250\text{mA}$ to $500\text{mA}$	–	$\pm 1$	–	V
Output Voltage Temperature Coefficient		$V_{IN} = V_{AC}, I_O = 500\text{mA}, T_C = -20^\circ$ to $+100^\circ\text{C}$	–	7	–	mV/ $^\circ\text{C}$
Input–Output Saturation Voltage	$V_{CE(sat)}$	$I_C = 1\text{A}, I_B = 0$	–	–	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	
Overload Capacity	$T_{S/B}$	$V_{CE} = 100\text{V}, I_C = 1\text{A}$	1.0	–	–	sec
Power Transistor Thermal Resistance	$R_{thJC}$	Between Junction and Stem Upper Surface	–	1.25	–	$^\circ\text{C}/\text{W}$
Input–Output Cutoff Current	$I_{CEO}$	$V_{CE} = 200\text{V}$ , Open (Between Pin1 & Pin2)	–	–	100	$\mu\text{A}$
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)

