

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° to $+125^\circ\text{C}$
 Storage Temperature Range, T_{stg} -30° 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		$V_{AC} = 120\text{V}$, $I_{IN} = 7\text{mA}$	124	125	126	V
NTE1742			129	130	131	V
NTE1743			134	135	136	V
Load Regulation	ΔV_{LOAD}	$I_O = 250\text{mA}$ to 500mA	–	± 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	–	$^\circ\text{C/W}$
Input–Output Cutoff Current	I_{CEO}	$V_{CE} = 200\text{V}$, 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)

