

NTE15012 & NTE15018 thru NTE15021 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 $+125^\circ\text{C}$

Note 1. **NTE15021** is a **discontinued** device and **no longer available**.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage NTE15018	V_{OUT}	$V_{AC} = 100\text{V}$, $I_{In} = 6\text{mA}$	114	115	116	V
NTE15021		$V_{AC} = 120\text{V}$, $I_{In} = 7\text{mA}$	122	123	124	V
NTE15020			124	125	126	V
NTE15019			129	130	131	V
NTE15012			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 2. Recommended Case Temperature: $T_{opr}(T_C) = +100^\circ\text{C}$.

Pin Connection Diagram
(Front View)

