



ELECTRONICS, INC.

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## 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°C
Operating Temperature Range ( $T_C$ ), $T_{opr}$ .....	-30° to +125°C
Storage Temperature Range, $T_{stg}$ .....	-30° to +125°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			122	123	124	V
NTE15020			124	125	126	V
NTE15019			129	130	131	V
NTE15012			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		$V_{IN} = V_{AC}, I_O = 500\text{mA}, T_C = -20^\circ \text{ to } +100^\circ\text{C}$	-	7	-	mV/°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	-	°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)

