NTE1776 thru NTE1778
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°C), P_D: 27W
- Maximum Power Transistor Junction Temperature, T_J: +150°C
- Operating Temperature Range (T_C), T_opr: –20° to +125°C
- Storage Temperature Range, T_stg: –30° to +125°C

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Test Conditions</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Voltage</td>
<td>V_OUT</td>
<td>V_IN = 161V, I_IN = 7.2mA</td>
<td>122.2</td>
<td>123.0</td>
<td>123.8</td>
<td>V</td>
</tr>
<tr>
<td>NTE1776</td>
<td></td>
<td>V_IN = 161V, I_IN = 6.9mA</td>
<td>129.2</td>
<td>130.0</td>
<td>130.8</td>
<td>V</td>
</tr>
<tr>
<td>NTE1777</td>
<td></td>
<td></td>
<td>134.2</td>
<td>135.0</td>
<td>135.8</td>
<td>V</td>
</tr>
<tr>
<td>Load Regulation</td>
<td>ΔVLOAD</td>
<td>I_O = 250mA to 500mA</td>
<td>–</td>
<td>±0.8</td>
<td>–</td>
<td>V</td>
</tr>
<tr>
<td>Output Voltage Temperature Coefficient</td>
<td></td>
<td>V_IN = V_AC, I_O = 500mA, T_C = –20° to +100°C</td>
<td>–</td>
<td>±0</td>
<td>–</td>
<td>mV/°C</td>
</tr>
<tr>
<td>Input–Output Saturation Voltage</td>
<td>V_CE(sat)</td>
<td>I_C = 1A, I_B = 10mA</td>
<td>–</td>
<td>–</td>
<td>1.5</td>
<td>V</td>
</tr>
<tr>
<td>Input–Output Voltage</td>
<td>V_CEO</td>
<td>I_CEO = 10mA, I_B = 0</td>
<td>200</td>
<td>–</td>
<td>–</td>
<td>V</td>
</tr>
<tr>
<td>DC Current Gain</td>
<td>h_FE</td>
<td>I_C = 1A, V_CE = 4V</td>
<td>1500</td>
<td>–</td>
<td>6500</td>
<td></td>
</tr>
<tr>
<td>Power Transistor Thermal Resistance</td>
<td>R_THJC</td>
<td>Between Junction and Stem Upper Surface</td>
<td>–</td>
<td>1.8</td>
<td>–</td>
<td>°C/W</td>
</tr>
<tr>
<td>Input–Output Cutoff Current</td>
<td>I_CEO</td>
<td>V_CE = 200V, Pin1, Pin2, and Pin5 Open</td>
<td>–</td>
<td>–</td>
<td>100</td>
<td>μA</td>
</tr>
<tr>
<td>Output–Base Reverse Current Capacity</td>
<td>I_EB(S/B) t = 65msec</td>
<td>(Between Emitter–Base)</td>
<td>–</td>
<td>300</td>
<td></td>
<td>mA</td>
</tr>
</tbody>
</table>

Note 1. Recommended Case Temperature: T_opr = +100°C.
Pin Connection Diagram
(Front View)

1. Common (-)
2. Base
3. Input
4. Output
5. Blank

Dimensions:
- 0.700 (17.7 mm)
- 0.177 (4.5 mm)
- 0.196 (5.0 mm)
- 1.101 (52.9 mm)
- 0.133 (3.4 mm)
- 0.590 (15.0 mm)
- 0.100 (2.54 mm)
- 0.500 (12.7 mm)
- 0.150 (3.8 mm)