



**ELECTRONICS, INC.**  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089

## NTE2354

### Silicon NPN Transistor

#### High Voltage Horizontal Output for High Definition CRT

**Applications:**

- High-definition color display horizontal deflection output

**Features:**

- Fast speed:  $t_f = 100\text{ns Typ}$
- High breakdown voltage:  $V_{CBO} = 1500\text{V}$
- High reliability

**Absolute Maximum Ratings:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Collector-to-Base Voltage, $V_{CBO}$ .....	1500V
Collector-to-Emitter Voltage, $V_{CEO}$ .....	800V
Emitter-to-Base Voltage, $V_{EBO}$ .....	6V
Collector Current, $I_C$ .....	10A
Peak Collector Current, $i_{cp}$ .....	25A
Collector Dissipation ( $T_C = +25^\circ\text{C}$ ), $P_C$ .....	150W
Junction Temperature, $T_J$ .....	+150°C
Storage Temperature Range, $T_{stg}$ .....	-55° to +150°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	$I_{CES}$	$V_{CE} = 1500\text{V}, R_{BE} = 0$	-	-	1.0	mA
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C = 100\text{mA}, I_B = 0$	800	-	-	V
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 4\text{V}, I_C = 0$	-	-	1.0	mA
Saturation Voltage Collector-to-Emitter	$V_{CE(sat)}$	$I_C = 8\text{A}, I_B = 2.0\text{A}$	-	-	5.0	V
Saturation Voltage Base-to-Emitter	$V_{BE(sat)}$	$I_C = 8\text{A}, I_B = 2.0\text{A}$	-	-	1.5	V
DC Current Gain	$h_{FE}$	$V_{CE} = 5\text{V}, I_C = 1.0\text{A}$	8	-	-	-
Storage Time	$t_{stg}$	$I_C = 6\text{A}, I_{B1} = 1.2\text{A}, I_{B2} = -2.4\text{A}$	-	-	3.0	$\mu\text{s}$
Fall Time	$t_f$	$I_C = 6\text{A}, I_{B1} = 1.2\text{A}, I_{B2} = -2.4\text{A}$	-	0.1	0.2	$\mu\text{s}$

