

## NTE164 Silicon NPN Transistor TV Vertical Output

**Description:**

The NTE164 is a high voltage silicon NPN transistor in a TO3 type package designed for color TV vertical output applications.

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

Collector–Base Voltage, $V_{CBO}$ .....	1500V
Collector–Emitter Voltage, $V_{CER}$ .....	700V
Emitter–Base Voltage, $V_{EBO}$ .....	5V
Collector Current, $I_C$ .....	1A
Emitter Current, $I_E$ .....	1A
Collector Dissipation ( $T_C = +25^\circ\text{C}$ ), $P_C$ .....	50W
Maximum Operating Junction Temperature, $T_J$ .....	+150°C
Storage Temperature Range, $T_{stg}$ .....	–65° 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	$I_{CBO}$	$V_{CB} = 500V, I_E = 0$	–	–	10	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$	–	–	5	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE} = 15V, I_C = 2A$	5	20	–	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 2A, I_B = 0.6A$	–	5.0	8.5	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 2A, I_B = 0.6A$	–	–	1.5	V
Transition Frequency	$f_T$	$V_{CE} = 10V, I_C = 0.1A$	–	3	–	MHz
Capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = 0, f = 1\text{MHz}$	–	95	–	pF
Fall Time	$t_f$	$I_{CP} = 2A, I_{B1} = 0.6A$	–	0.5	1.0	$\mu\text{s}$

