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## NTE2300 Silicon NPN Transistor High Voltage, Horizontal Output TO3 Type Package

### **Description:**

The NTE2300 is a silicon NPN transistor in a TO3P type package designed for use in large screen color TV deflection circuits.

### **Features:**

- High Breakdown Voltage and High Reliability
- High Switching Speed

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

Collector-Base Voltage, $V_{CBO}$ .....	1500V
Collector-Emitter Voltage, $V_{CEO}$ .....	800V
Emitter-Base Voltage, $V_{EBO}$ .....	7V
Collector Current, $I_C$	
Continuous .....	5A
Peak .....	16A
Collector Dissipation ( $T_C = +25^\circ\text{C}$ ), $P_D$ .....	120W
Operating 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	$I_{CBO}$	$V_{CB} = 800V, I_E = 0$	-	-	10	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$	-	-	1	mA
DC Current Gain	$h_{FE}$	$V_{CE} = 5V, I_C = 1A$	5	-	-	
Current-Gain Bandwidth Product	$f_T$	$V_{CE} = 10V, I_C = 1A$	-	3	-	MHz
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 4A, I_B = 0.8A$	-	-	5.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 4A, I_B = 0.8A$	-	-	1.5	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 5mA, I_E = 0$	1500	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 100mA, R_{BE} = \infty$	800	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 200mA, I_C = 0$	7	-	-	V
Fall Time	$t_f$	$I_C = 4A, I_{B1} = 0.8A, I_{B2} = -1.6A$	-	-	0.4	$\mu\text{s}$

