



ELECTRONICS, INC.

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NTE2640 Silicon NPN Transistor Color TV Horizontal Deflection Output

Features:

- High Speed
- High Collector–Emitter Breakdown Voltage
- High Reliability
- On–Chip Damper Diode

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}	6V
Collector Current, I_C	
Continuous	6A
Pulse	15A
Collector Dissipation, P_C	
$T_A + 25^\circ\text{C}$	2W
$T_C + 25^\circ\text{C}$	30W
Operating Junction Temperature, T_J	$+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CE} = 800\text{V}, I_E = 0$	–	–	10	μA
	I_{CES}	$V_{CE} = 1500\text{V}, R_{BE} = 0$	–	–	1.0	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4\text{V}, I_C = 0$	40	–	–	mA
Collector–Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 100\text{mA}, I_B = 0$	800	–	–	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 3.15\text{A}, I_B = 630\text{mA}$	–	–	3.0	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 3.15\text{A}, I_B = 630\text{mA}$	–	–	1.5	V
DC Current Gain	h_{FE}	$V_{CE} = 5\text{V}, I_C = 500\text{mA}$	10	–	–	
		$V_{CE} = 5\text{V}, I_C = 3.5\text{A}$	5	–	8	
Diode Forward Voltage	V_F	$I_{EC} = 6\text{A}$	–	–	2	V
Fall Time	t_f	$V_{CC} = 200\text{V}, V_{BE} = -2\text{V}, I_C = 2\text{A},$ $I_{B1} = 400\text{mA}, I_{B2} = 800\text{mA},$ Pulse Width = $20\mu\text{s}$, Duty Cycle $\leq 1\%$	–	–	0.3	μs

