ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
http://www.nteinc.com

RoHS 2002/95/EC

NTE2641
Silicon NPN Transistor
Horizontal Deflection Output for High Resolution Displays & Color TVs
TO3P Full Pack

Features:

- High Voltage: V_{CBO} = 1500V
- Low Saturation Voltage: $V_{CE(sat)}$ = 3V Max
- High Speed: t_f = 0.1μs Typ

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Collector–Base Voltage, V_{CBO} 1500V
Collector–Emitter Voltage, V_{CEO} 750V
Emitter–Base Voltage, V_{EBO} 5V
Collector Current, I_C
  Continuous DC 17A
  Pulse 34A
Base Current, I_B 8.5A
Collector Power Dissipation (T_C = +25°C), P_C 75W
Operating Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	V_{CB} = 1500V, I_E = 0	–	–	1	mA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 5V, I_C = 0	–	–	100	μA
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 10mA, I_B = 0	750	–	–	V
DC Current Gain	h_{FE}	V_{CE} = 5V, I_C = 2A	22	–	48	
		V_{CE} = 5V, I_C = 7A	9	–	18	
		V_{CE} = 5V, I_C = 14A	5	–	8	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 14A, I_B = 3.5A	–	–	3	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 14A, I_B = 3.5A	–	1.0	1.5	V
Transition Frequency	f_T	V_{CE} = 10V, I_C = 0.1A	–	2	–	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz	–	240	–	pF

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Switching Time						
Storage Time	t_{stg}	I_{CP} = 9A, I_{B1}(end) = 1.3A, f_H = 64kHz	–	2.7	3.0	µs
Fall Time	t_f		–	0.2	0.3	µs
Storage Time	t_{stg}	I_{CP} = 7.5A, I_{B1}(end) = 1.1A, f_H = 100kHz	–	1.8	2.0	µs
Fall Time	t_f		–	0.10	0.15	µs