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RoHS
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NTE2637
Silicon NPN Transistor
CRT Horizontal Deflection, High Voltage, Fast Switching
TO3P Full Pack

Features:
- High Breakdown Voltage Capability
- Fully Insulated Package for Easy Mounting
- Low Saturation Voltage
- High Switching Speed

Applications:
- Horizontal Deflection Stage in Standard and High Resolution Displays for TVs and Monitors
- Switching Power Supply for TVs and Monitors

Absolute Maximum Ratings:

Collector–Base Voltage (I_E = 0), V_{CBO} 1700V
Collector–Emitter Voltage (I_B = 0), V_{CEO} 700V
Emitter–Base Voltage (I_C = 0), V_{EBO} 10V
Collector Current, I_C
- Continuous 8A
- Peak (t_p < 5ms) 15A

Base Current, I_B
- Continuous 5A
- Peak (t_p < 5ms) 8A

Total Dissipation (T_C = +25°C), P_{tot} 60W
Maximum Operating Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –65° to +150°C
Maximum Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 2.08°C/W

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

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Collector Cutoff Current	I_{CES}	V_{CE} = 1700V, V_{BE} = 0		–	–	1	mA
			T_J = +125°C	–	–	2	mA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 5V, I_C = 0		–	–	100	μA

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

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Collector−Emitter Sustaining Voltage	$V_{CEO(sus)}$	I_C = 100mA		700	–	–	V
Emitter−Base Voltage	V_{EBO}	I_E = 10mA, I_C = 0		10	–	–	V
Collector−Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 5A, I_B = 1.25A, Note 1		–	–	1.5	V
Base−Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 5A, I_B = 1.25A, Note 1		–	–	1.3	V
DC Current Gain	h_{FE}	I_C = 5A, V_{CE} = 5V, Note 1		6	–	–	
			T_J = +100°C	4	–	–	
Resistive Load							
Storage Time	t_s	V_{CC} = 400V, I_C = 5A, I_{B1} = 1.25A, I_{B2} = 2.5A		–	2.7	3.9	μs
Fall Time	t_f			–	190	280	ns
Resistive Load							
Storage Time	t_s	I_C = 5A, f = 15625Hz, I_{B1} = 1.25A, I_{B2} = 2.5A, $V_{ceflyback}$ = 1050 sin(π/10 10^6)t V		–	2.3	–	μs
Fall Time	t_f			–	350	–	ns
Storage Time	t_s	I_C = 5A, f = 31250Hz, I_{B1} = 1.25A, I_{B2} = 2.5A, $V_{ceflyback}$ = 1200 sin(π/10 10^6)t V		–	2.3	–	μs
Fall Time	t_f			–	200	–	ns

Note 1. Pulsed: Pulse Duration = 300μs, Duty Cycle = 1.5%.