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NTE2675 Silicon NPN Transistor High Voltage High Speed Switch TO3PN Type Package

Features:

- High Reliability
- High Voltage, High Speed Switching

Applications:

- Switching Regulators
- Ultrasonic Generators
- High Frequency Inverters
- General Purpose Power Amplifiers

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

Collector–Base Voltage (Open Emitter), V_{CBO}	900V
Collector–Emitter Voltage (Open Base), V_{CEO}	800V
Emitter–Base Voltage (Open Collector), V_{EBO}	10V
Collector Current, I_C	6A
Base Current, I_B	3A
Collector Power Dissipation ($T_C = +25^\circ\text{C}$), P_C	100W
Operating Junction Temperature, T_J	+150°C
Storage Temperature Range, T_{stg}	–55° to +150°C
Thermal Resistance, Junction–to–Case, R_{thJC}	1.25°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}, I_B = 0$	800	–	–	V
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1\text{mA}, I_E = 0$	900	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1\text{mA}, I_B = 0$	10	–	–	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 2\text{A}, I_B = 400\text{mA}$	–	–	1.0	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 2\text{A}, I_B = 400\text{mA}$	–	–	1.5	V

Electrical Characteristics (Cont'd): ($T_J = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB} = 900\text{V}, I_E = 0$	-	-	1.0	mA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = 10\text{V}, I_C = 0$	-	-	1.0	mA
DC Current Gain	h_{FE}	$I_C = 2\text{A}, V_{CE} = 5\text{V}$	10	-	-	
Turn-On Time	t_{on}	$I_C = 3\text{A}, I_{B1} = 600\text{mA}, I_{B2} = 1.2\text{A}, R_L = 100\Omega, P_W = 20\mu\text{s}, \text{Duty} \leq 2\%$	-	-	1.0	μs
Storage Time	t_{stg}		-	-	4.0	μs
Fall Time	t_f		-	-	0.8	μs

