ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

NTE2343 (NPN) & NTE2344 (PNP)
Silicon Complementary Transistors
Darlington Power Amp, Switch

Absolute Maximum Ratings:

Collector–Base Voltage, V_{CBO} 120V
Collector–Emitter Voltage, V_{CEO} 120V
Collector Current, I_C
DC 12A
Pulse 15A
Base Current, I_B 200mA
Collector Dissipation (T_C = +25°C), P_C 80W
Operating Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –65° to +150°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 1.56°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Emitter Sustaining Voltage	$V_{CEO(sus)}$	I_C = 100mA, I_B = 0, Note 1	100	–	–	V
Collector Cutoff Current	I_{CBO}	V_{CB} = 100V, I_E = 0	–	–	100	µA
	I_{CEO}	V_{CE} = 100V, I_B = 0	–	–	1	mA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 5V, I_C = 0	–	–	2	mA
DC Current Gain	h_{FE}	V_{CE} = 3V, I_C = 3A	1000	–	–	
		V_{CE} = 3V, I_C = 5A	750	–	1000	
		V_{CE} = 3V, I_C = 10A	100	–	–	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 5A, I_B = 20mA, Note 1	–	–	2.0	V
		I_C = 10A, I_B = 100mA, Note 1	–	–	3.0	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 5A, I_B = 20mA, Note 1	–	–	2.5	V
		I_C = 10A, I_B = 100mA, Note 1	–	–	4.0	V
Parallel Diode Forward Voltage	V_f	I_f = 5A, Note 1	–	1.3	2.0	V
		I_f = 10A, Note 1	–	1.8	4.0	V
Small–Signal Current Gain	h_{fe}	I_C = 1A, V_{CE} = 10V, f = 1MHz	20	–	–	

Note 1. Pulse Test: Pulse Width = 300µs, Duty Cycle = 1.5%.

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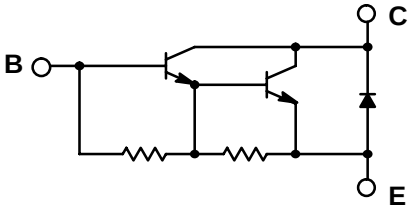

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