



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

NTE2682 (NPN) & NTE2683 (PNP) Silicon Complementary Darlington Transistors Audio Power Output TO3PL Type Package

Features:

- High Forward Current Transfer Ratio, h_{FE}
- Low Collector–Emitter Saturation Voltage, $V_{CE(sat)}$
- Optimum for 120W HiFi Output Applications

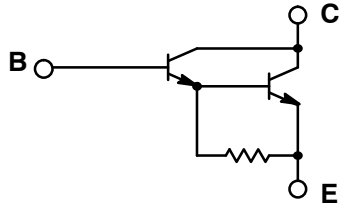
Absolute Maximum Ratings: ($T_C = +25^\circ\text{C}$ unless otherwise specified)

Collector–Base Voltage, V_{CBO}	160V
Collector–Emitter Voltage, V_{CEO}	160V
Emitter–Base Voltage, V_{EBO}	5V
Collector Current, I_C	
Continuous	8A
Peak	15A
Collector Power Dissipation, P_D	
$T_C = +25^\circ\text{C}$	150W
$T_A = +25^\circ\text{C}$	3.5W
Operating Junction Temperature, T_J	+150°C
Storage Temperature Range, T_{stg}	–55° to +150°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Emitter Voltage	V_{CEO}	$I_C = 30\text{mA}, I_B = 0$	160	–	–	V
Collector–Base Cutoff Current	I_{CBO}	$V_{CB} = 160\text{V}, I_E = 0$	–	–	100	°A
Emitter–Emitter Cutoff Current	I_{CEO}	$V_{CE} = 160\text{V}, I_B = 0$	–	–	100	°A
Emitter–Base Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$	–	–	100	°A
Forward Current Transfer Ratio	h_{FE}	$V_{CE} = 5\text{V}, I_C = 1\text{A}$	1000	–	–	
		$V_{CE} = 5\text{V}, I_C = 7\text{A}$	3500	–	20000	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 7\text{A}, I_B = 7\text{mA}$	–	–	3.0	V
Transition Frequency	f_T	$V_{CE} = 10\text{V}, I_C = 0.5\text{A}, f = 30\text{MHz}$	–	20	–	MHz
Turn–On Time NTE2682	t_{on}	$I_C = 7\text{A}, I_{B1} = -I_{B1} = 7\text{mA}, V_{CC} = 50\text{V}$	–	2.0	–	°s
			–	1.0	–	°s
Storage Time NTE2682	t_{stg}		–	6.0	–	°s
			–	1.5	–	°s
Fall Time	t_f		–	1.2	–	°s
			–	1.2	–	°s

NTE2682



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