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

NTE20 (NPN) & NTE21 (PNP)
Silicon Complementary Transistors
High Power, Low Collector Saturation Voltage
Power Output

Features:
- High Power in a Compact ATR Package: P_O = 1W

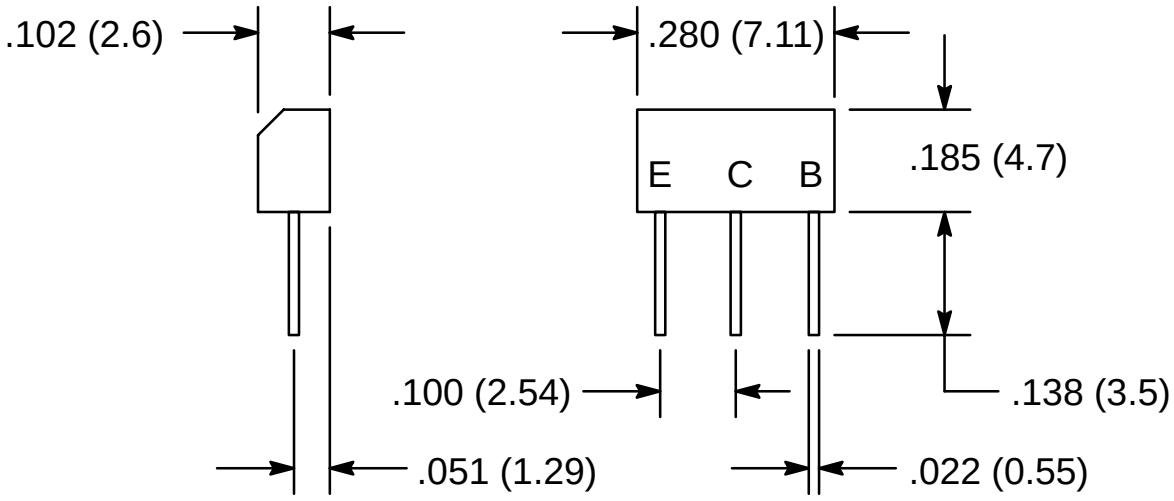
Applications:
- Regulated Power Supplies
- 1 to 2W Output Stages
- Drivers

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

Collector–Base Voltage, V_{CBO} 40V
Collector–Emitter Voltage, V_{CEO} 32V
Emitter–Base Voltage, V_{EBO} 5V
Collector Current, I_C
  Continuous 2A
  Pulse
    NTE20 . . . . . 2.5A
    NTE21 . . . . . 3.0A
Collector Dissipation, P_C 1W
Junction Temperature, T_J . . . . . +135°C
Storage Temperature Range, T_{stg} . . . . . –55° to +135°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 1mA	32	–	–	V
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 50μA	40	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = 50μA	5	–	–	V
Collector Cutoff Current	I_{CBO}	V_{CB} = 20V	–	–	1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 4V	–	–	1	μA
DC Current Gain	h_{FE}	V_{CE} = 3V, I_C = 500mA	120	–	270	
Collector Saturation Voltage	$V_{CE(sat)}$	I_C = 2A, I_C = 200mA	–	500	–	mV
Transition Frequency	f_T	V_{CE} = 5V, I_C = 500mA	–	100	–	MHz
Output Capacitance	C_{ob}	V_{CB} = 10V, f = 1MHz	–	50	–	pF


.102 (2.6)
.280 (7.11)
.185 (4.7)
E
C
B
.100 (2.54)
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.022 (0.55)