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

NTE16 (NPN) & NTE17 (PNP)
Silicon Complementary Transistors
Low Noise, General Purpose Amplifier

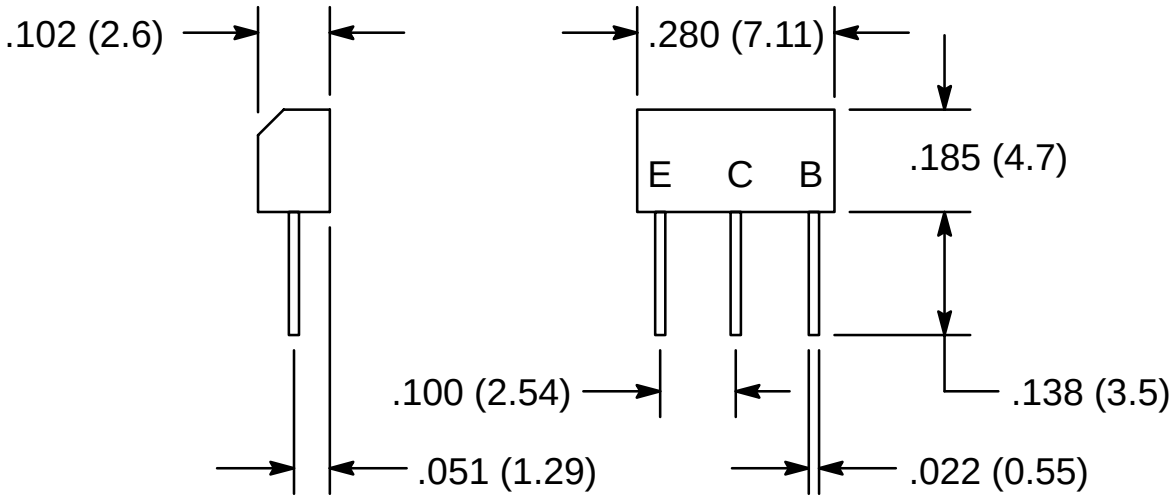
Features:
- Low Collector Saturation Voltage
- Low Output Capacitance
- Low Noise

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

Collector–Base Voltage, V_{CBO} 50V
Collector–Emitter Voltage, V_{CEO} 40V
Emitter–Base Voltage, V_{EBO} 5V
Collector Current, I_C 100mA
Collector Dissipation, P_C 300mW
Operating Junction Temperature, T_J . . . . . +125°C
Storage Temperature Range, T_{stg} . . . . . –55° to +125°C

Electrical Charactristics: (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	40	–	–	V
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 50µA	50	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = 50µA	5	–	–	V
Collector Cutoff Current	I_{CBO}	V_{CB} = 30V	–	–	0.5	µA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 4V	–	–	0.5	µA
DC Current Gain	h_{FE}	V_{CE} = 6V, I_C = 1mA	270	–	560	
Collector–Emitter Saturation Voltage NTE16	$V_{CE(sat)}$	I_C = 50mA, I_B = 5mA	–	–	0.4	V
NTE17			–	0.1	0.5	V
Transition Frequency NTE16	f_T	V_{CE} = 12V, I_E = 2mA	–	180	–	MHz
NTE17			–	140	–	MHz
Output Capacitance NTE16	C_{ob}	V_{CB} = 12V, I_E = 0, f = 1MHz	–	2.0	3.5	pF
NTE17			–	4.0	5.0	pF


.102 (2.6)
.280 (7.11)
.185 (4.7)
E
C
B
.100 (2.54)
.138 (3.5)
.051 (1.29)
.022 (0.55)