ELECTRONICS, INC.
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NTE306
Silicon NPN Transistor
AM, CB Transmitter Driver

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

Collector–Emitter Voltage, V_{CEO} 50V

Collector–Base Voltage, V_{CB} 100V

Emitter–Base Voltage, V_{EB} 6V

Collector Current, I_C 1.5A

Base Current, I_B 0.5A

Total Device Dissipation, P_C

T_a = +25°C 950mW

T_c = +25°C 7.9W

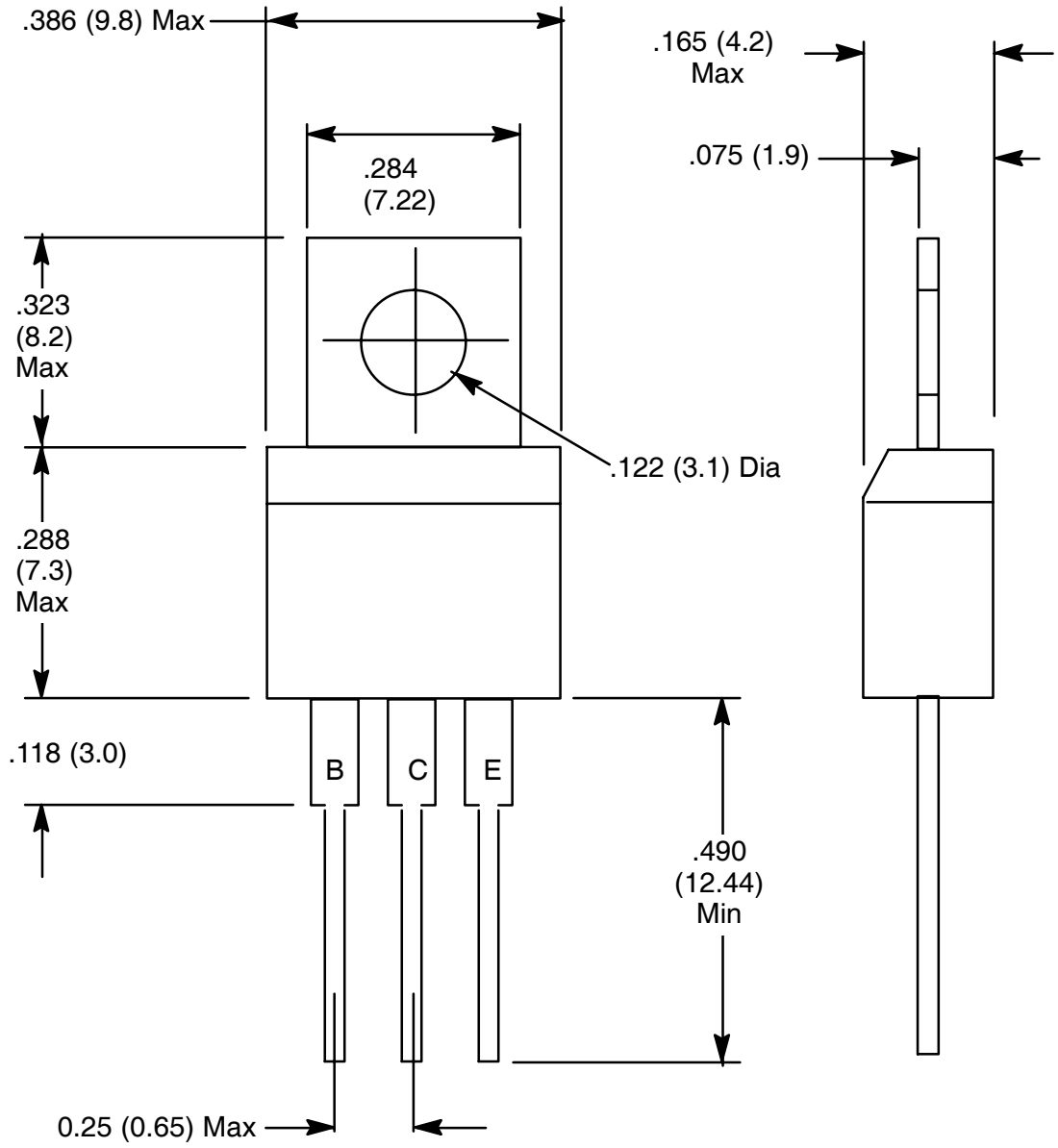
Operating Junction Temperature Range, T_J . . . . . –50° to +150°C

Storage Temperature Range, T_{stg} . . . . . –50° to +150°C

Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 12°C/W

Electrical Characteristics: (T_C = +75°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Base Cutoff Current	I_{CBO}	V_{CB} = 25V, I_E = 0	–	–	0.2	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 6V, I_C = 0	–	–	0.2	μA
Base–Emitter Voltage	V_{BE}	V_{CE} = 6V, I_C = 5mA	–	–	0.7	V
Collector–Emitter Sustaining Voltage	$V_{CEO(sus)}$	I_C = 2mA	50	–	–	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 1A, I_B = 50mA	–	–	0.3	V
Base–Emitter Saturation Voltage	$V_{BE(Sat)}$		–	–	1.0	V
DC Current Gain	h_{FE}	V_{CE} = 2V, I_C = 100mA	98	–	649	
		V_{CE} = 1V, I_C = 1A	70	–	–	
Small Signal Current Gain	$\|h_{FE}\|$	V_{CB} = 2V, I_E = 10mA, f = 10MHz	–	18	–	db
Collector Capacitence	C_C	V_{CB} = 10V, I_E = 0, f = 1MHz	–	16	40	pF


.386 (9.8) Max
.165 (4.2)
Max
.075 (1.9)
.284
(7.22)
.323
(8.2)
Max
.122 (3.1) Dia
.288
(7.3)
Max
.118 (3.0)
B
C
E
.490
(12.44)
Min
0.25 (0.65) Max