ELECTRICAL CHARACTERISTICS

(Values are at T_A = 25°C unless otherwise noted.)

Symbol	Parameter	Conditions	Min.	Max.	Unit
BV_{CBO}	Collector−Base Breakdown Voltage				V
	2N6517	I_C = 100 μA, I_E = 0	350	–	
	2N6517C	I_C = 100 μA, I_E = 0	400	–	
BV_{CEO}	Collector−Emitter Breakdown Voltage*				V
	2N6517	I_C = 1 mA, I_B = 0	350	–	
	2N6517C	I_C = 1 mA, I_B = 0	400	–	
BV_{EBO}	Emitter−Base Breakdown Voltage	I_E = 10 μA, I_C = 0	6	–	V
I_{CBO}	Collector Cut−Off Current	V_{CB} = 250 V, I_E = 0	–	50	nA
I_{EBO}	Emitter Cut−Off Current	V_{EB} = 5 V, I_C = 0	–	50	nA
h_{FE}	DC Current Gain*				
	2N6517/2N6517C	V_{CE} = 10 V, I_C = 1 mA	20	–	
	2N6517/2N6517C	V_{CE} = 10 V, I_C = 10 mA	30	–	
	2N6517/2N6517C	V_{CE} = 10 V, I_C = 30 mA	30	200	
	2N6517/2N6517C	V_{CE} = 10 V, I_C = 50 mA	20	200	
	2N6517/2N6517C	V_{CE} = 10 V, I_C = 100 mA	15	–	
	2N6517C	V_{CE} = 10 V, I_C = 5 mA	50	200	
V_{CE}(sat)	Collector−Emitter Saturation Voltage	I_C = 10 mA, I_B = 1 mA	–	0.3	V
		I_C = 20 mA, I_B = 2 mA	–	0.35	
		I_C = 30 mA, I_B = 3 mA	–	0.5	
		I_C = 50 mA, I_B = 5 mA	–	1	
V_{BE}(sat)	Base−Emitter Saturation Voltage	I_C = 10 mA, I_B = 1 mA	–	0.75	V
		I_C = 20 mA, I_B = 2 mA	–	0.85	
		I_C = 30 mA, I_B = 3 mA	–	0.9	
C_{ob}	Output Capacitance	V_{CB} = 20 V, I_E = 0, f = 1 MHz	–	6	pF
f_T	Current Gain Bandwidth Product*	I_C = 10 mA, V_{CE} = 20 V, f = 20 MHz	40	200	MHz
V_{BE}(on)	Base−Emitter On Voltage	I_C = 100 mA, V_{CE} = 10 V,	–	2	V

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

*Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 2%

TYPICAL PERFORMANCE CHARACTERISTICS

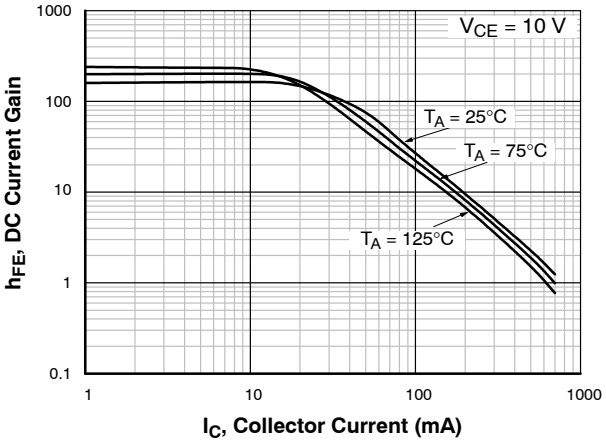

Figure 1. DC Current Gain

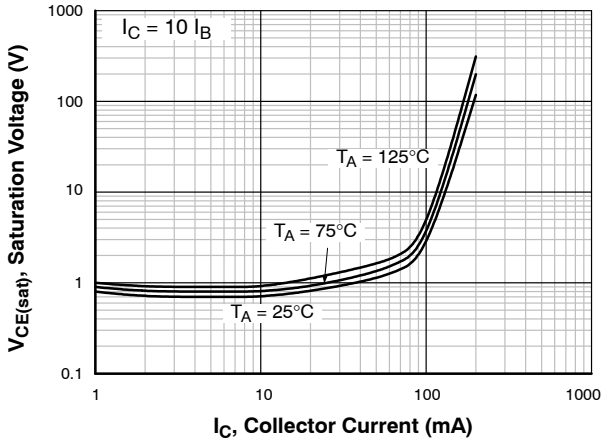

Figure 2. Saturation Voltage

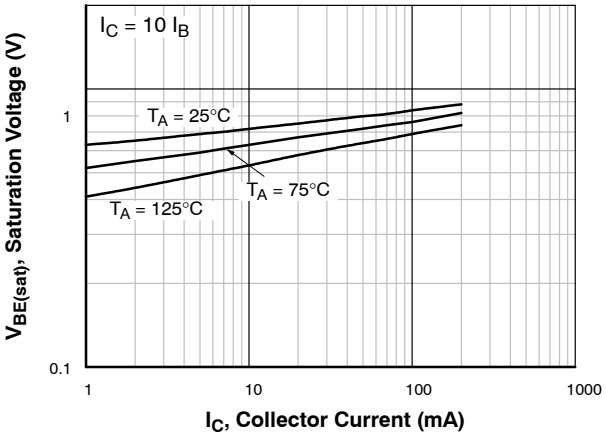

Figure 3. Saturation Voltage

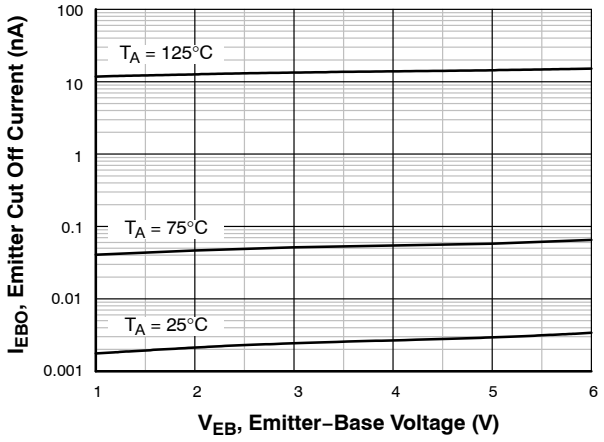

Figure 4. Emitter Cut Off Current

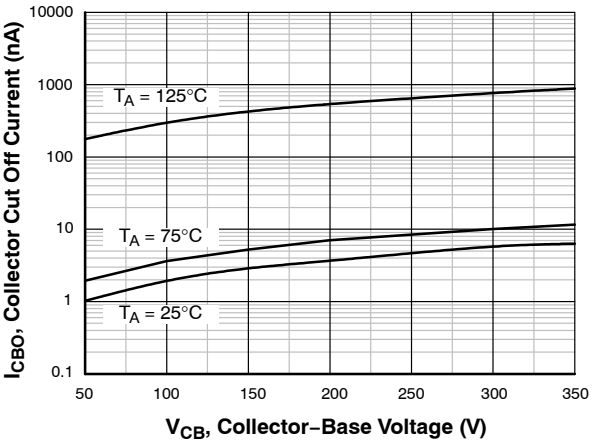

Figure 5. Collector Cut Off Current

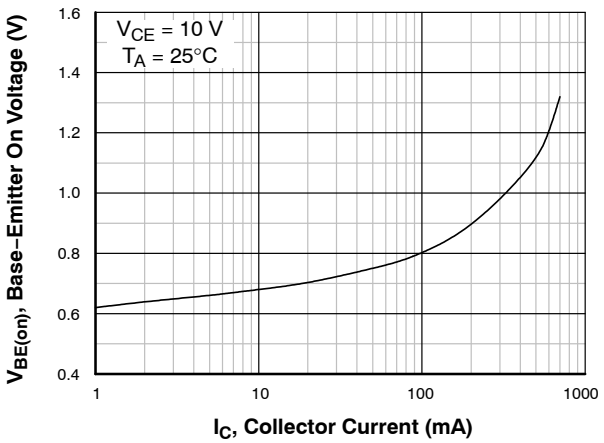

Figure 6. Base−Emitter On Voltage

TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

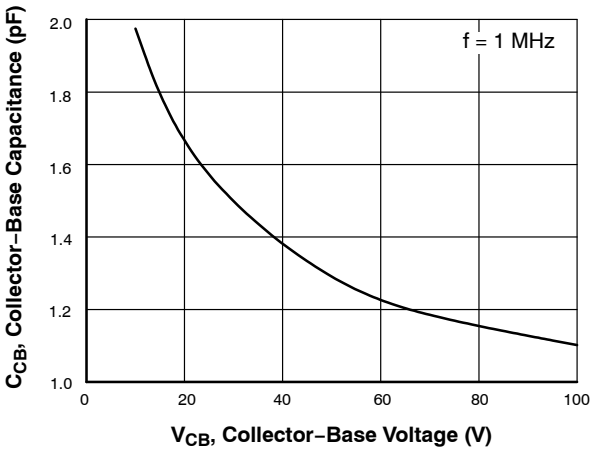

Figure 7. Output Capacitance

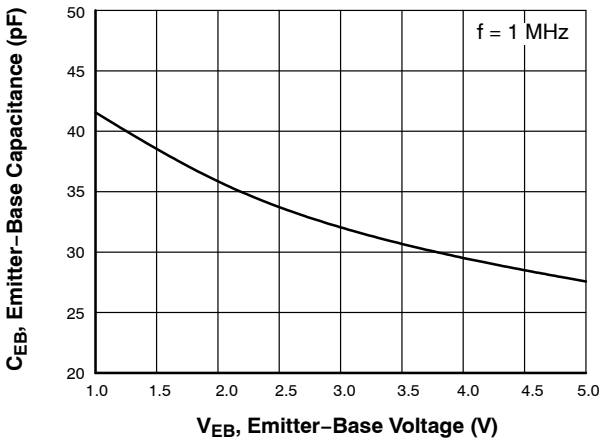

Figure 8. Input Capacitance

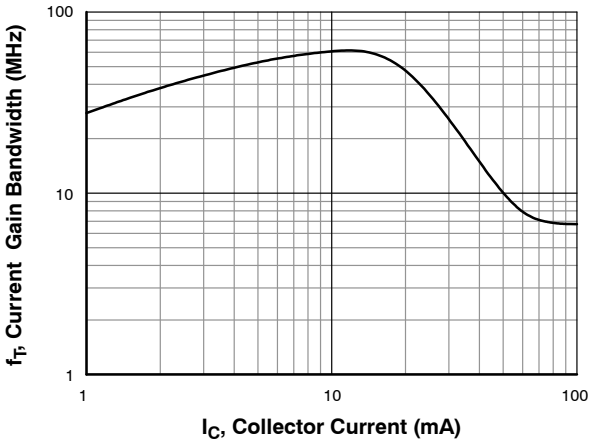

Figure 9. Current Gain Bandwidth Product

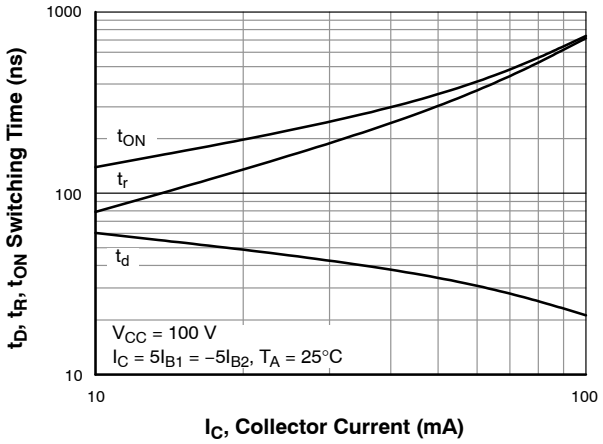

Figure 10. Resistive Load Switching

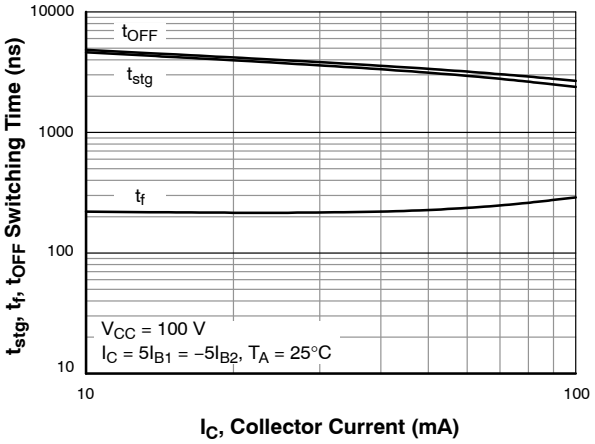

Figure 11. Resistive Load Switching

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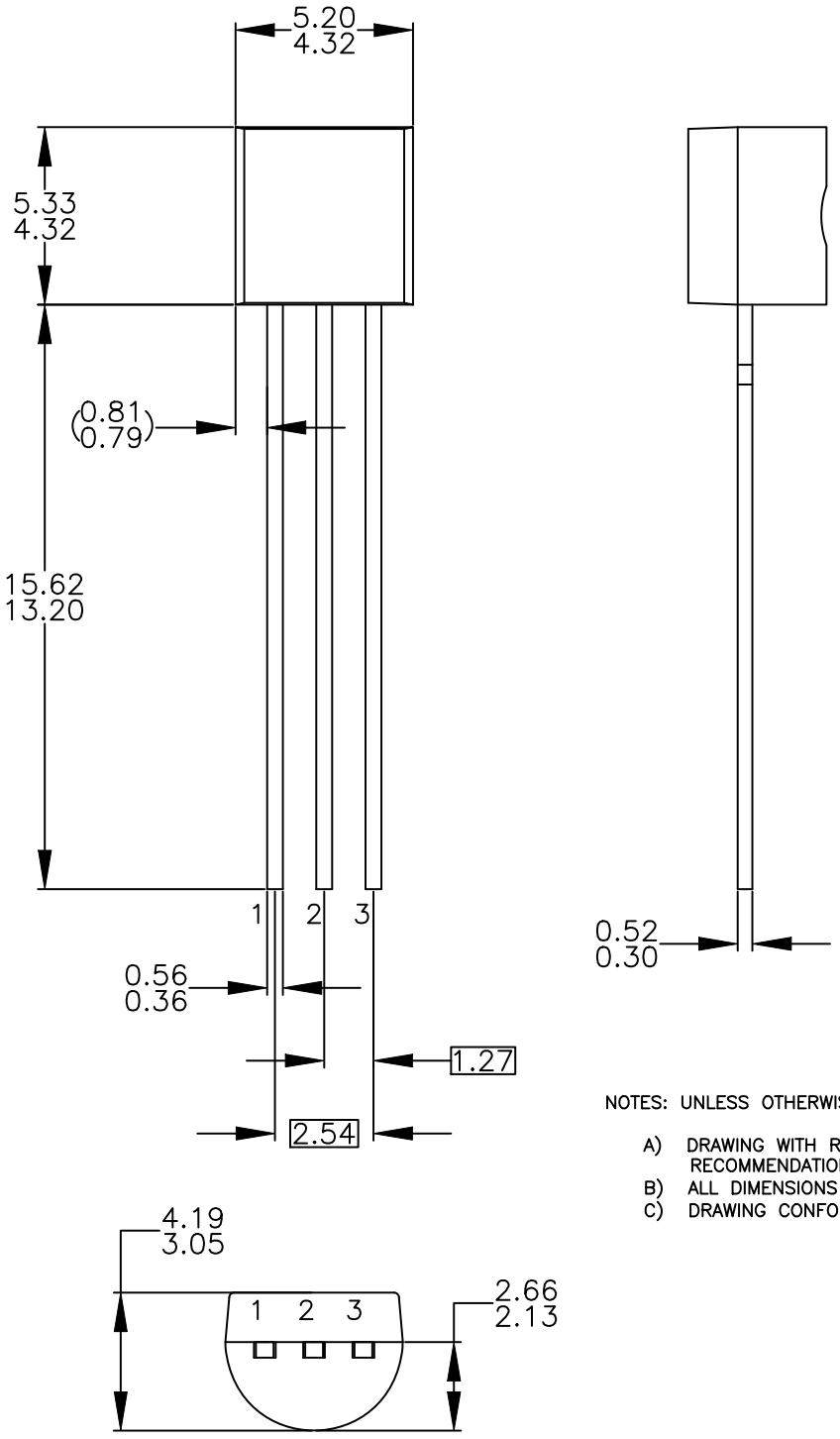

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MECHANICAL CASE OUTLINE
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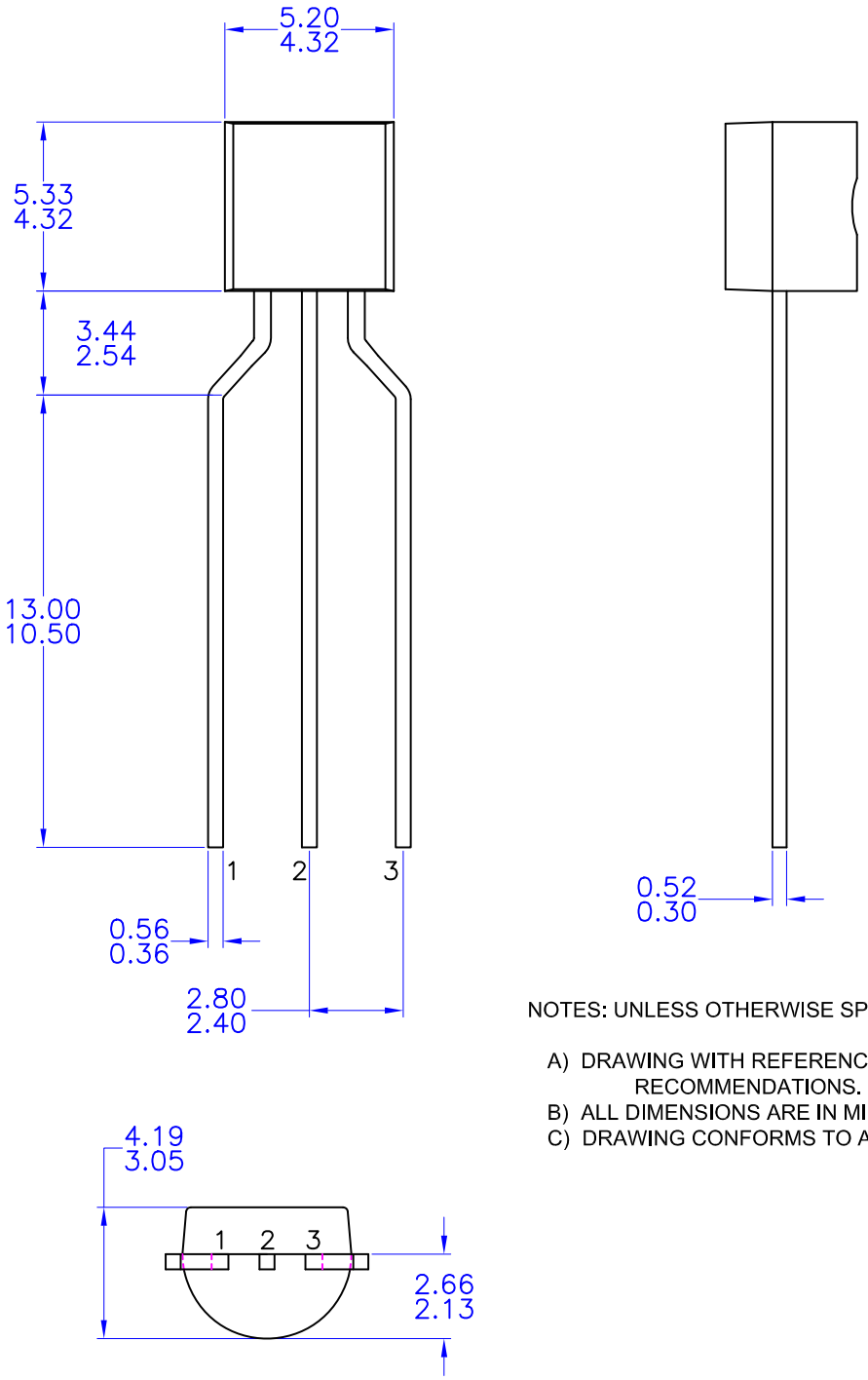

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