

2N6517

ELECTRICAL CHARACTERISTICS

(Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.)

Symbol	Parameter	Conditions	Min.	Max.	Unit
BV_{CBO}	Collector-Base Breakdown Voltage 2N6517 2N6517C	$I_C = 100 \mu\text{A}, I_E = 0$ $I_C = 100 \mu\text{A}, I_E = 0$	350 400	- -	V
BV_{CEO}	Collector-Emitter Breakdown Voltage* 2N6517 2N6517C	$I_C = 1 \text{ mA}, I_B = 0$ $I_C = 1 \text{ mA}, I_B = 0$	350 400	- -	V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 10 \mu\text{A}, I_C = 0$	6	-	V
I_{CBO}	Collector Cut-Off Current	$V_{CB} = 250 \text{ V}, I_E = 0$	-	50	nA
I_{EBO}	Emitter Cut-Off Current	$V_{EB} = 5 \text{ V}, I_C = 0$	-	50	nA
h_{FE}	DC Current Gain* 2N6517/2N6517C 2N6517/2N6517C 2N6517/2N6517C 2N6517/2N6517C 2N6517/2N6517C 2N6517C	$V_{CE} = 10 \text{ V}, I_C = 1 \text{ mA}$ $V_{CE} = 10 \text{ V}, I_C = 10 \text{ mA}$ $V_{CE} = 10 \text{ V}, I_C = 30 \text{ mA}$ $V_{CE} = 10 \text{ V}, I_C = 50 \text{ mA}$ $V_{CE} = 10 \text{ V}, I_C = 100 \text{ mA}$ $V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$	20 30 30 20 15 50	- - 200 200 - 200	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 10 \text{ mA}, I_B = 1 \text{ mA}$ $I_C = 20 \text{ mA}, I_B = 2 \text{ mA}$ $I_C = 30 \text{ mA}, I_B = 3 \text{ mA}$ $I_C = 50 \text{ mA}, I_B = 5 \text{ mA}$	- - - -	0.3 0.35 0.5 1	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 10 \text{ mA}, I_B = 1 \text{ mA}$ $I_C = 20 \text{ mA}, I_B = 2 \text{ mA}$ $I_C = 30 \text{ mA}, I_B = 3 \text{ mA}$	- - -	0.75 0.85 0.9	V
C_{ob}	Output Capacitance	$V_{CB} = 20 \text{ V}, I_E = 0, f = 1 \text{ MHz}$	-	6	pF
f_T	Current Gain Bandwidth Product*	$I_C = 10 \text{ mA}, V_{CE} = 20 \text{ V}, f = 20 \text{ MHz}$	40	200	MHz
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = 100 \text{ mA}, V_{CE} = 10 \text{ V},$	-	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 $\leq 300 \mu\text{s}$, Duty Cycle $\leq 2\%$

TYPICAL PERFORMANCE CHARACTERISTICS

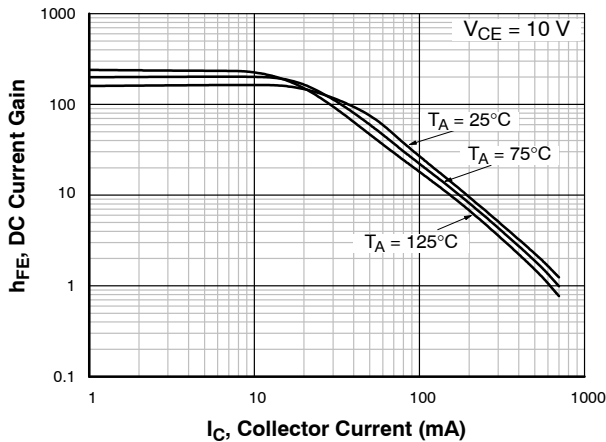


Figure 1. DC Current Gain

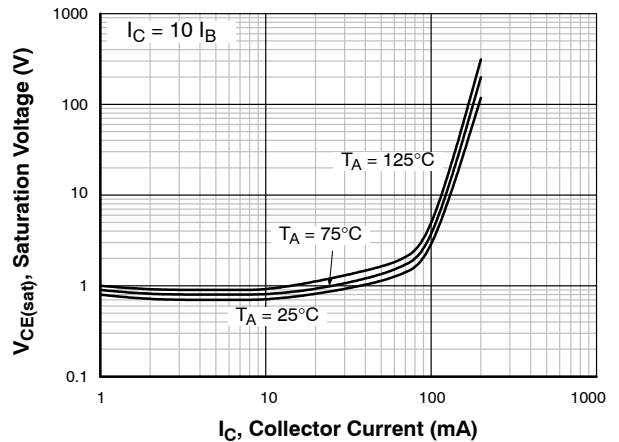


Figure 2. Saturation Voltage

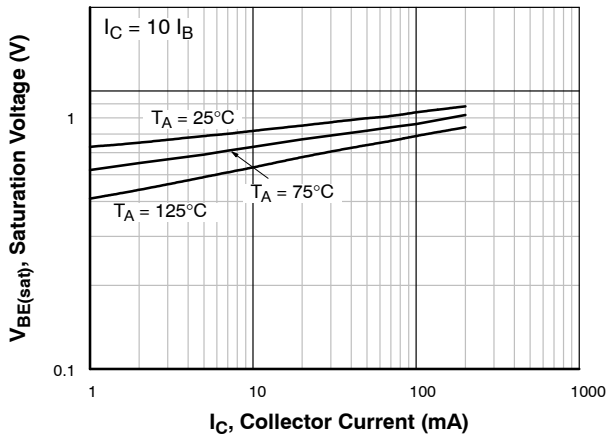


Figure 3. Saturation Voltage

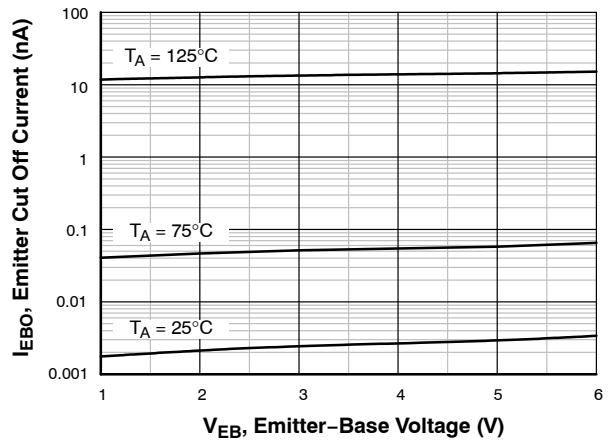


Figure 4. Emitter Cut Off Current

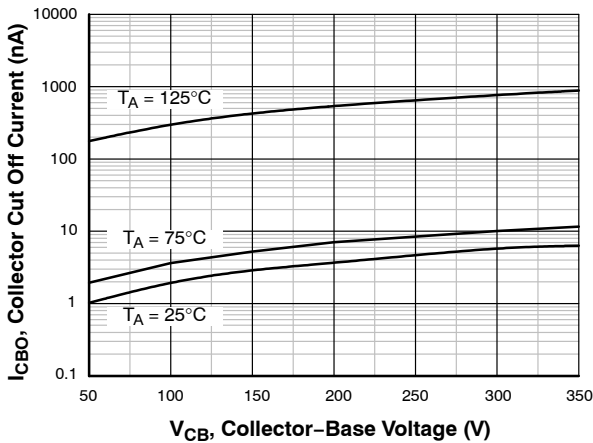


Figure 5. Collector Cut Off Current

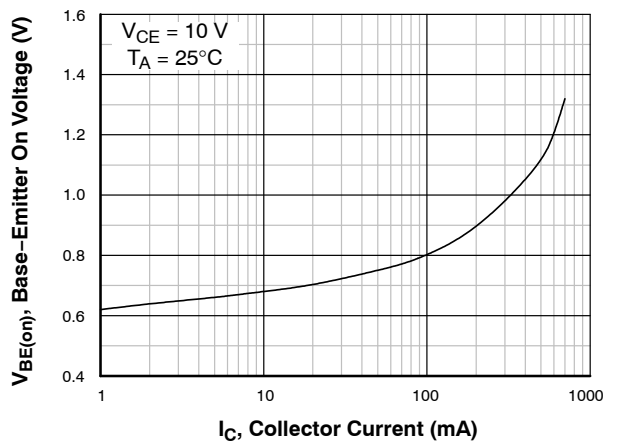


Figure 6. Base-Emitter On Voltage

TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

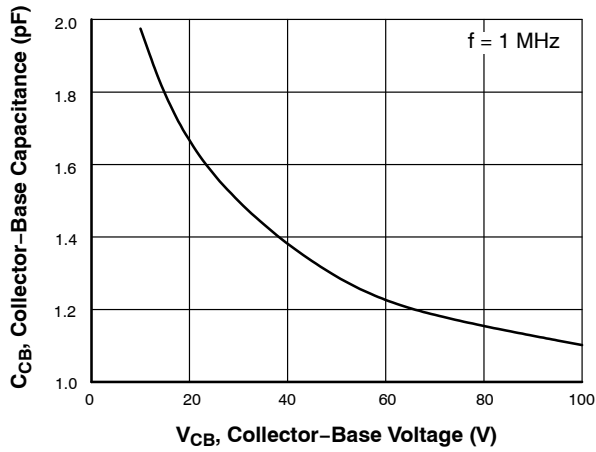


Figure 7. Output Capacitance

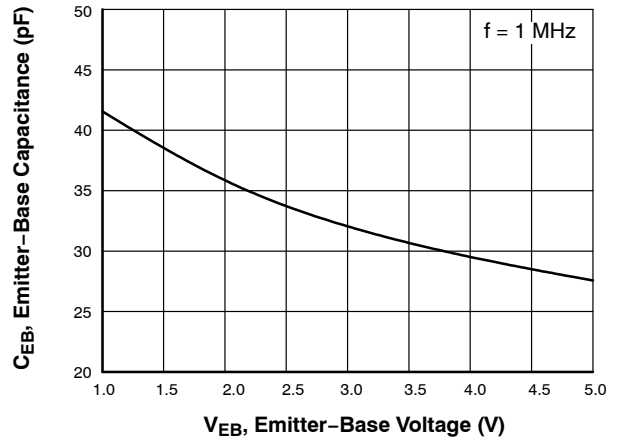


Figure 8. Input Capacitance

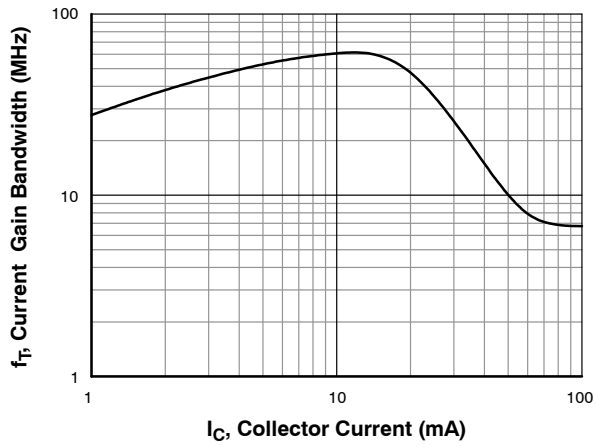


Figure 9. Current Gain Bandwidth Product

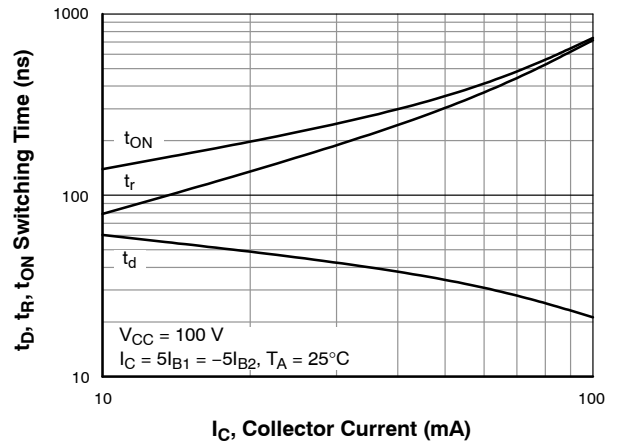


Figure 10. Resistive Load Switching

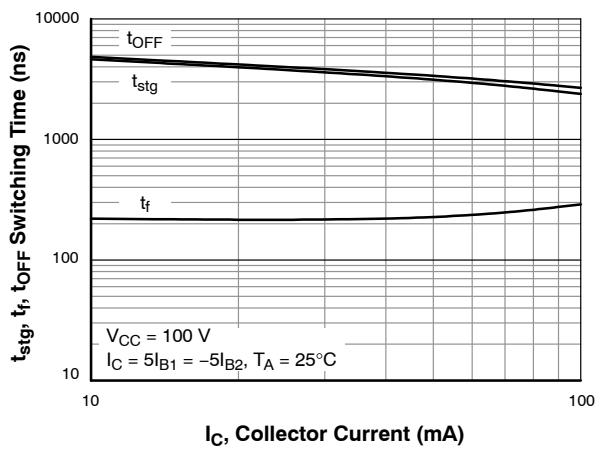


Figure 11. Resistive Load Switching

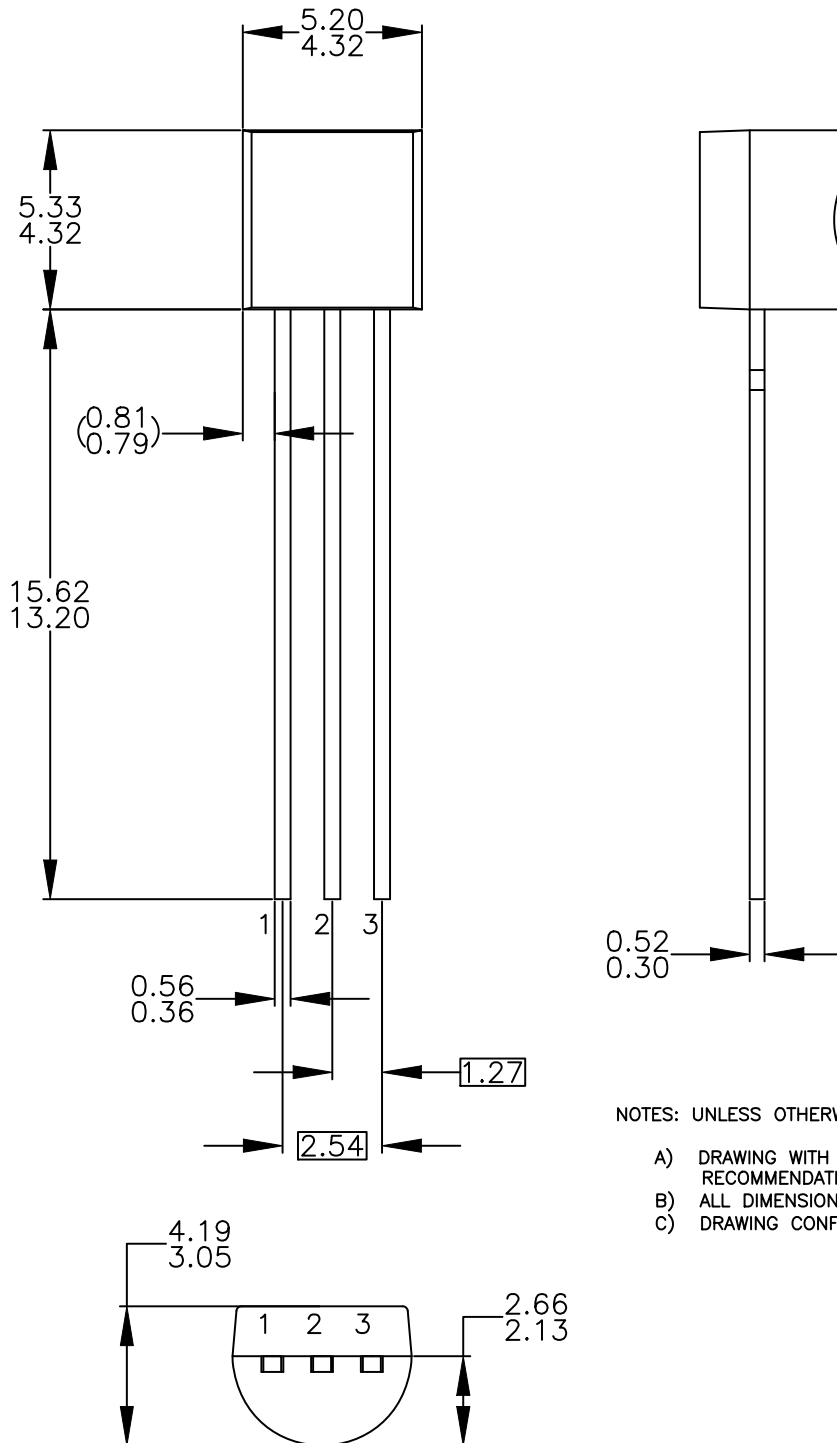
MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

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ISSUE O

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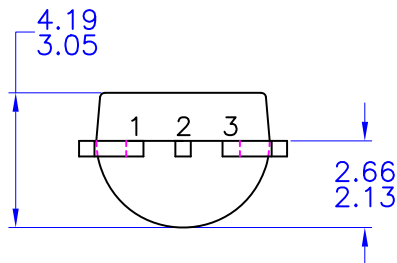
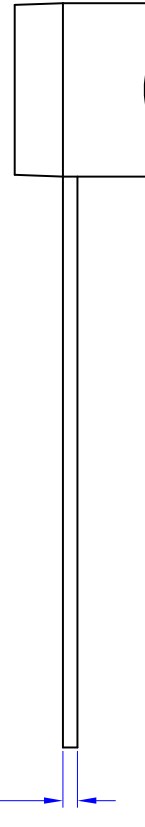
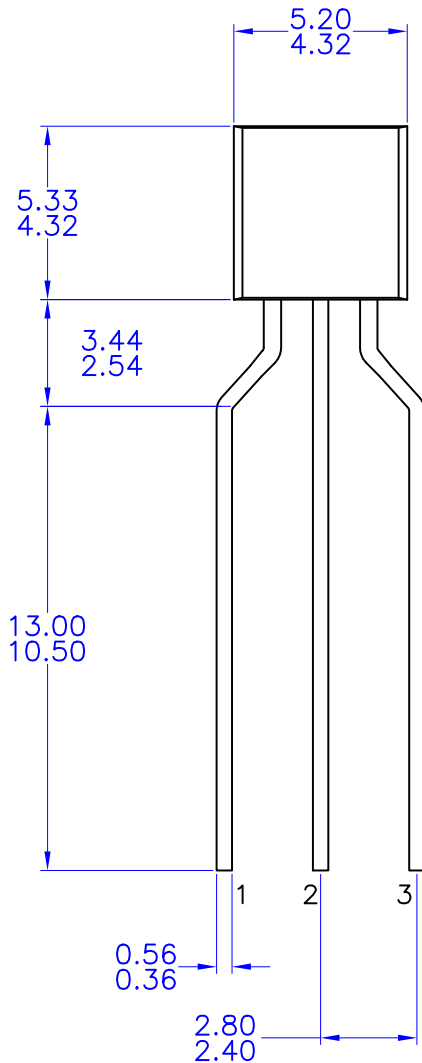
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