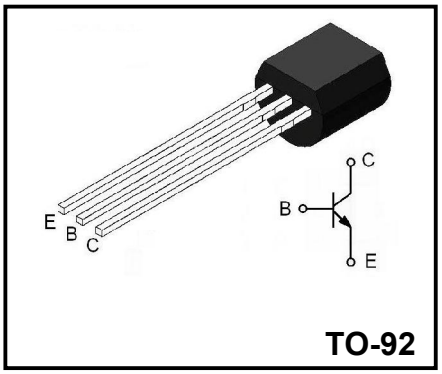
NPN Plastic-Encapsulate Transistors



TO-92

High Voltage Transistor

- Collector-Emitter Voltage: V_{CEO}=350V
- Collector Dissipation: $P_{C\ (max)}$=625mW
- Complement to 2N6520

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	350	V
Collector-Emitter Voltage	BV_{CEO}	350	V
Emitter-Base Voltage	BV_{EBO}	6	V
Collector Current	I_C	500	mA
Collector Power Dissipation	P_D	625	mW
Junction Temperature	Tj	150	℃
Storage Temperature	Tstg	-55～+150	℃

Electrical Characteristics (Ta=25℃)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CBO}	I_C = 100μA，I_E = 0	350			V
Collector-emitter breakdown voltage	BV_{CEO}	I_C = 1mA，I_B = 0	350			V
Emitter-base breakdown voltage	BV_{EBO}	I_E = 100μA，I_C = 0	6			V
Collector cut-off current	I_{CBO}	V_{CB} = 250V，I_E = 0			50	nA
Emitter cut-off current	I_{EBO}	V_{EB} = 5V，I_C = 0			50	nA
DC current gain	h_{FE}	V_{CE} = 10V，I_B= 10mA V_{CE} = 10V，I_B= 30mA V_{CE} = 10V，I_B= 50mA V_{CE} = 10V，I_B= 100mA	30 30 20 10		200 200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 10mA，I_B = 1mA I_C = 30mA，I_B = 3mA I_C = 50mA，I_B = 5mA			0.3 0.5 1	V
Base -emitter saturation voltage	$V_{BE(sat)}$	I_C = 10mA，I_B = 1mA I_C = 30mA，I_B = 3mA			0.75 0.9	V
Base-Emitter On Voltagel	$V_{BE(on)}$	V_{CE} = 10V，I_C= 100mA			2	V
Transition frequency*	f_T	V_{CE} = 20V，I_B = 10mA	40		200	MH_Z
Output Capacitance	C_{ob}	V_{CE} = 20V, I_E =0, f=1MHz			6	pF

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

Typical Characteristics

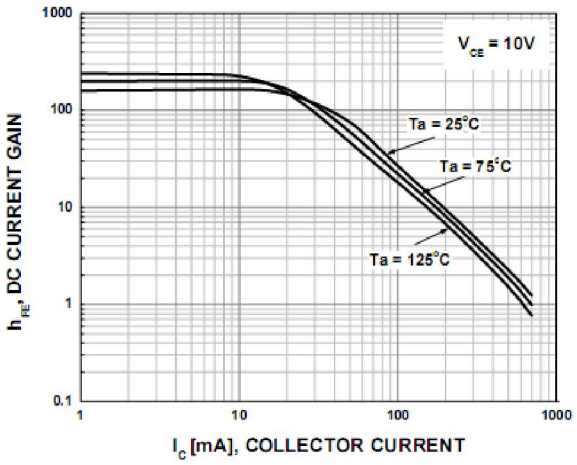


Figure 1. DC current Gain

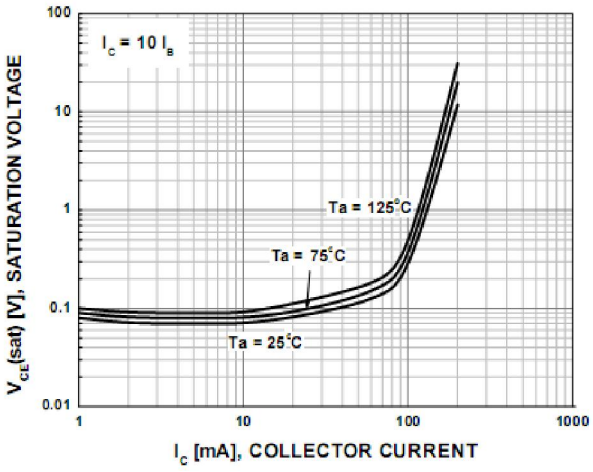


Figure2. Collector-Emitter Voltage

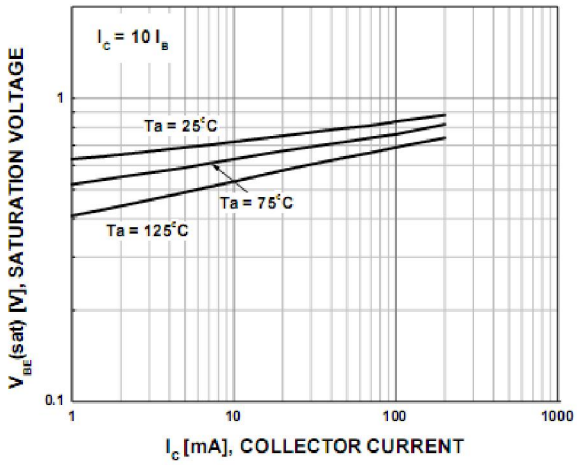


Figure 3. Saturation Voltage

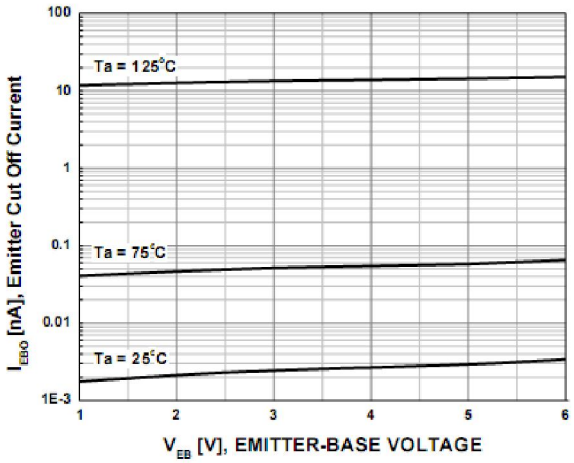


Figure 4. Emitter Cut Off Current

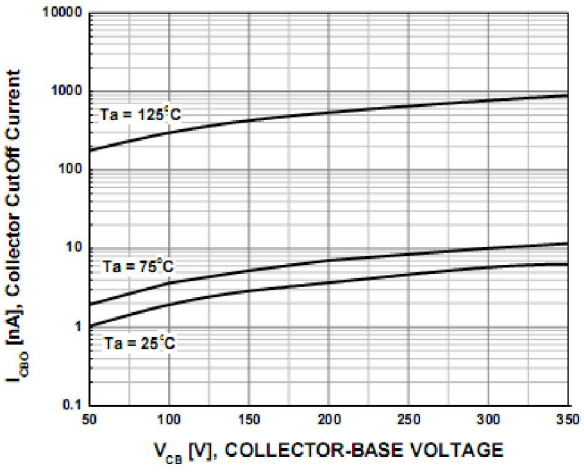


Figure 5. Collector CutOff Current

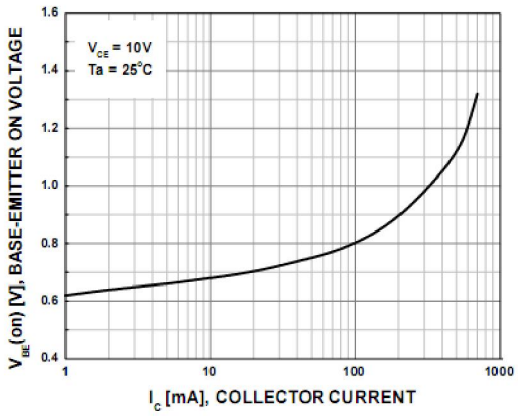


Figure 6. Base-Emitter On Voltage

Figure 6. Base-Emitter On Voltage

Typical Characteristics

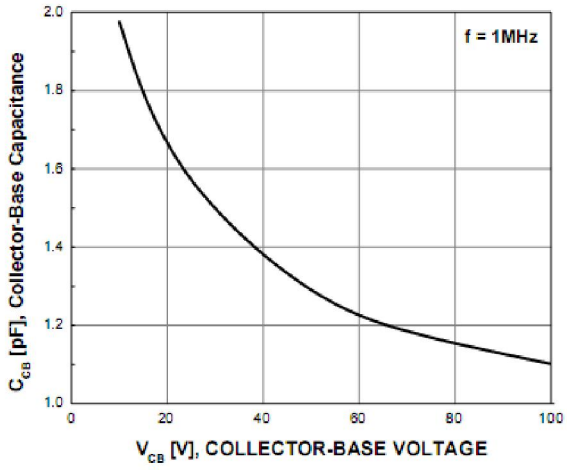


Figure 7. Output Capacitance

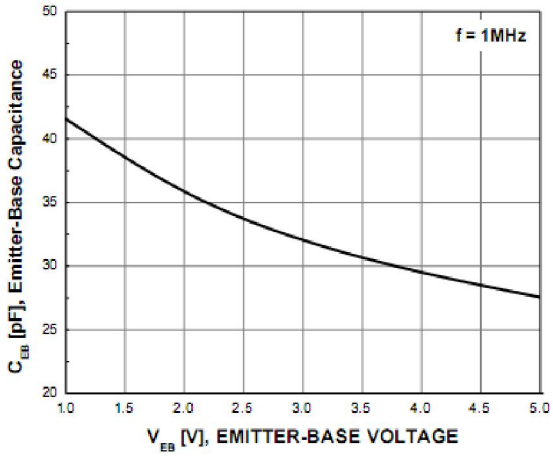


Figure 8. Input Capacitance

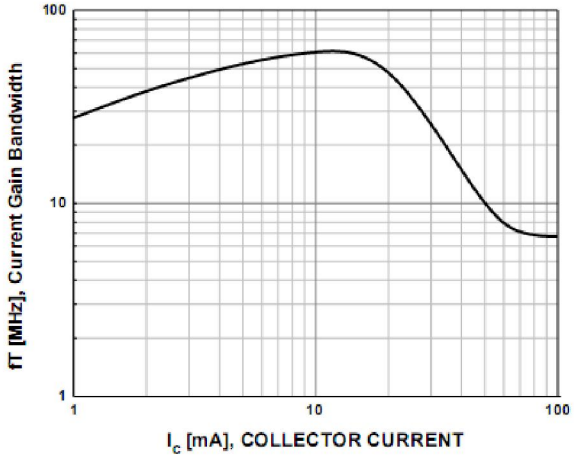


Figure 9. Current Gain Bandwidth Product

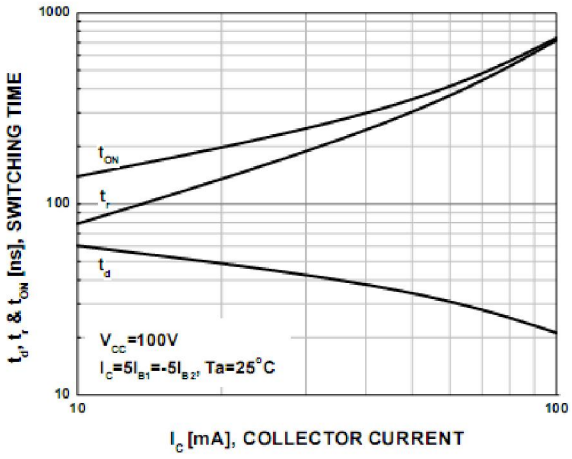


Figure 10. Resistive Load Switching

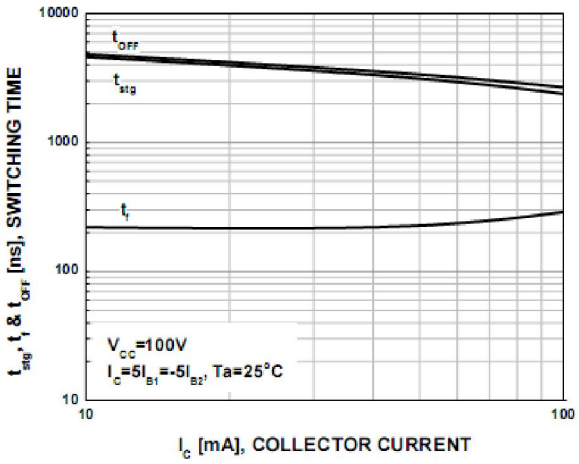


Figure 11. Resistive Load Switching

Package Dimensions

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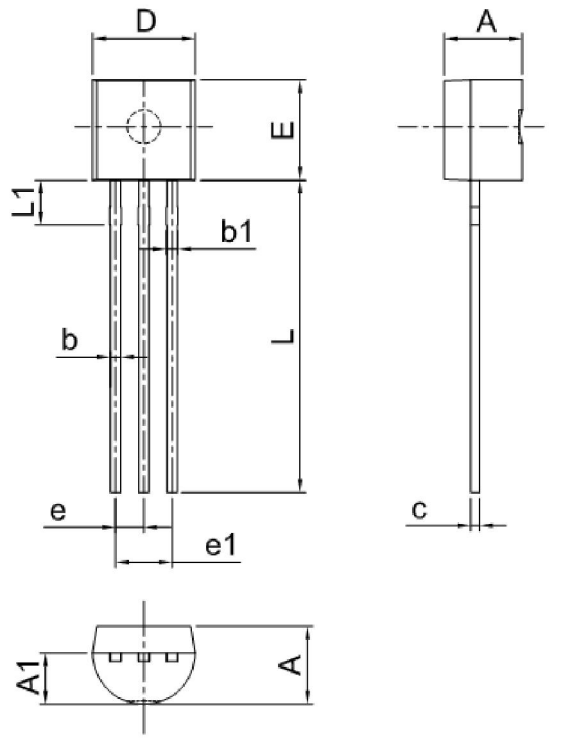

Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	3.30	3.70	0.130	0.146
A1	2.30	2.70	0.091	0.106
b	0.40	0.50	0.016	0.020
b1	0.50	0.70	0.020	0.028
c	0.35	0.45	0.014	0.018
D	4.45	4.70	0.175	0.185
E	4.40	4.65	0.173	0.183
e	1.17	1.37	0.046	0.054
e1	2.34	2.64	0.092	0.104
L	13.50	14.50	0.531	0.571
L1	1.80	2.20	0.071	0.087

Product Specification Classification

Part Number	Package	Marking	Pack
2N6517	TO-92	YFW 2N6517 XXXXX	1000PCS/Bag 2000pcs/box