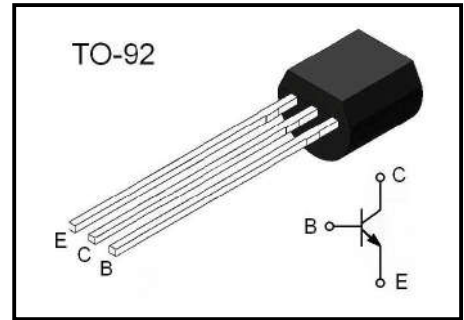


NPN Plastic-Encapsulate Transistors



High Voltage Transistor

- ◆Collector-Emitter Voltage: $V_{CE0}=350V$
- ◆Collector Dissipation: $P_{C(max)}=625mW$
- ◆Complement to 2N6520

Marking Code	
2N6517	YFW 2N6517

Absolute Maximum Ratings (Ta=25°C)

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	T_j	150	°C
Storage Temperature	T_{stg}	-55~+150	°C

Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	350			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 1mA, I_B = 0$	350			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 100\mu A, I_C = 0$	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}	$V_{CE} = 10V, I_B = 10mA$	30			
		$V_{CE} = 10V, I_B = 30mA$	30		200	
		$V_{CE} = 10V, I_B = 50mA$	20		200	
		$V_{CE} = 10V, I_B = 100mA$	10			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10mA, I_B = 1mA$			0.3	V
		$I_C = 30mA, I_B = 3mA$			0.5	
		$I_C = 50mA, I_B = 5mA$			1	
Base -emitter saturation voltage	$V_{BE(sat)}$	$I_C = 10mA, I_B = 1mA$			0.75	V
		$I_C = 30mA, I_B = 3mA$			0.9	
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = 10V, I_C = 100mA$			2	V
Transition frequency*	f_T	$V_{CE} = 20V, I_B = 10mA$	40		200	MHz
Output Capacitance	C_{ob}	$V_{CE} = 20V, I_E = 0, f = 1MHz$			6	pF

* Pulse Test: Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$

Typical Characteristics

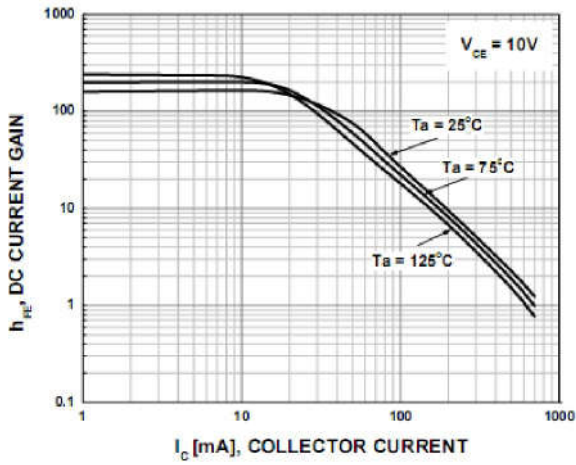


Figure 1. DC current Gain

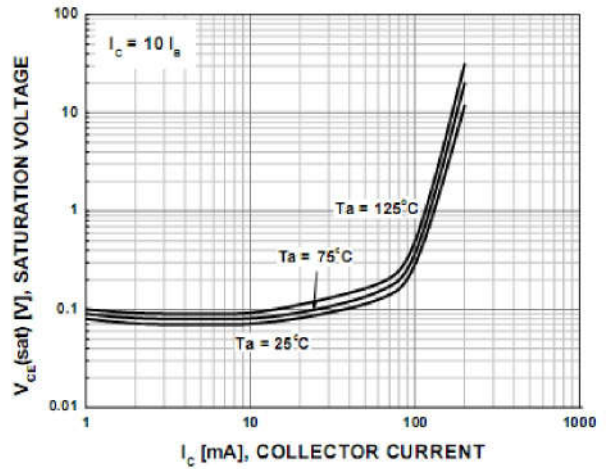


Figure 2. Collector-Emitter Voltage

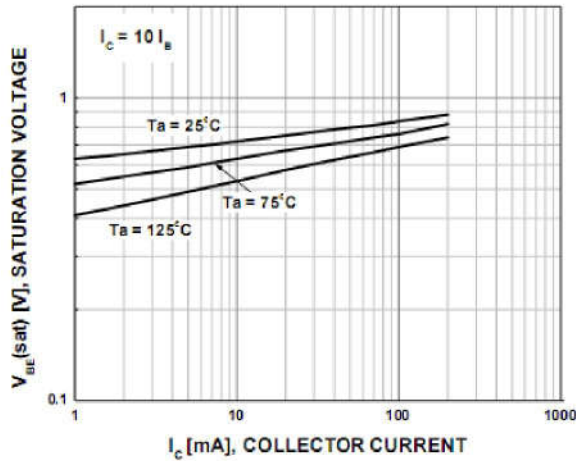


Figure 3. Saturation Voltage

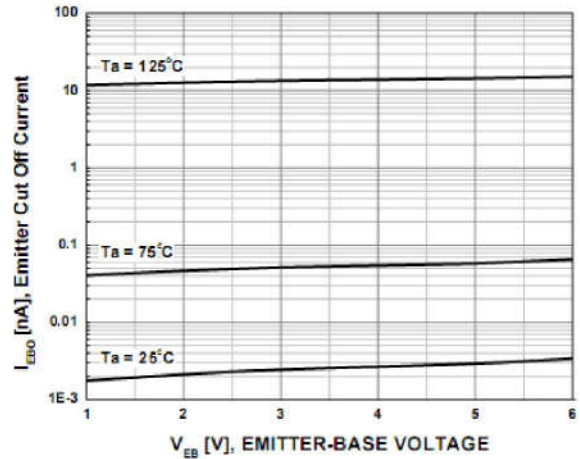


Figure 4. Emitter Cut Off Current

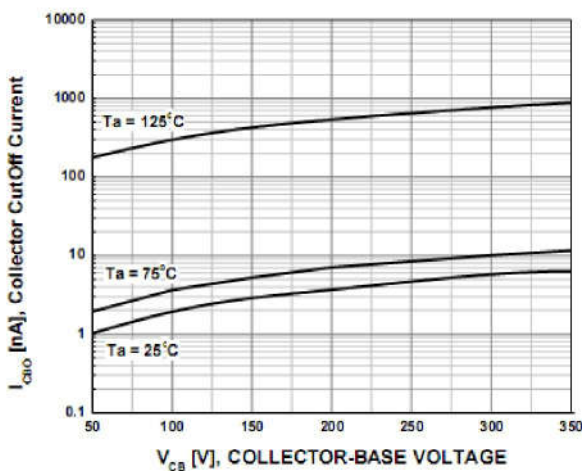


Figure 5. Collector CutOff Current

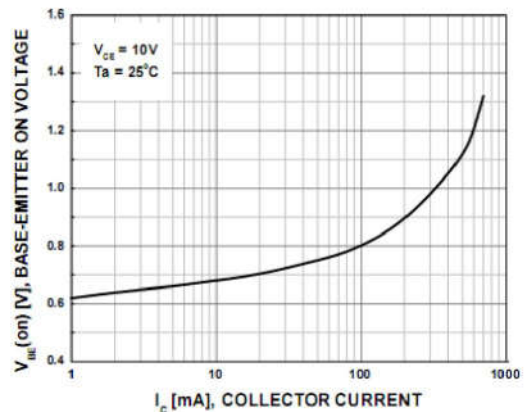


Figure 6. Base-Emitter On Voltage

Typical Characteristics

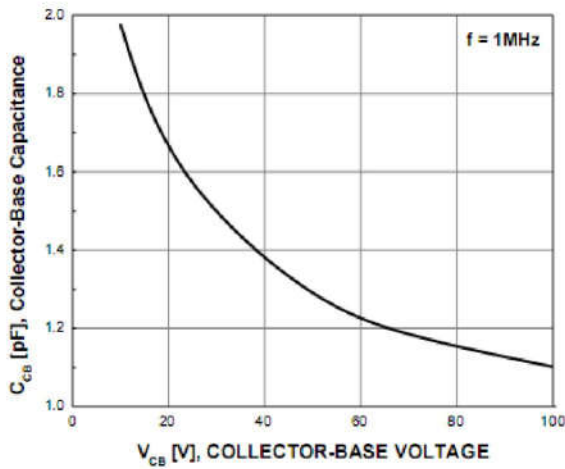


Figure 7. Output Capacitance

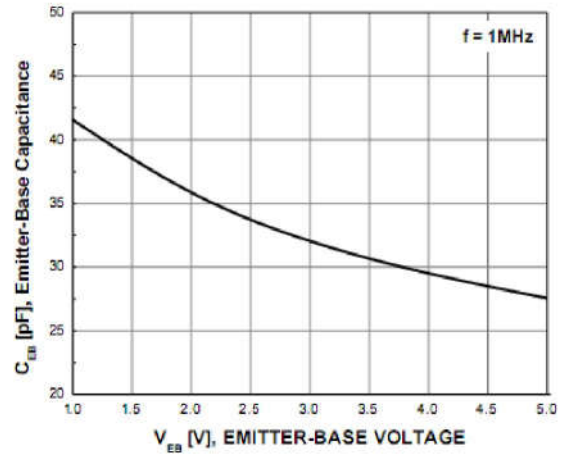


Figure 8. Input Capacitance

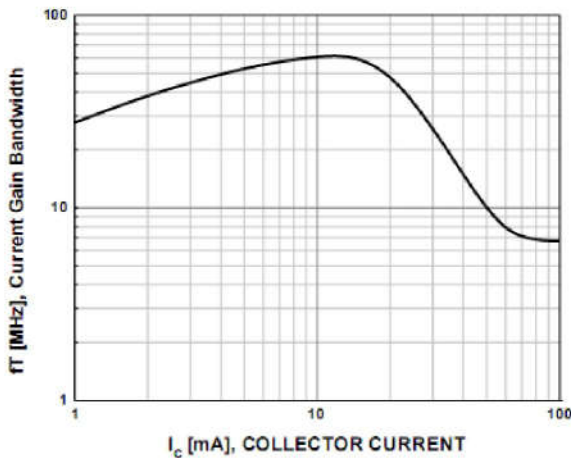


Figure 9. Current Gain Bandwidth Product

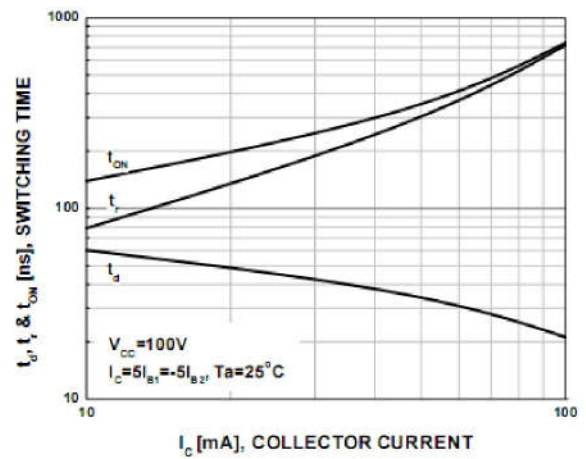


Figure 10. Resistive Load Switching

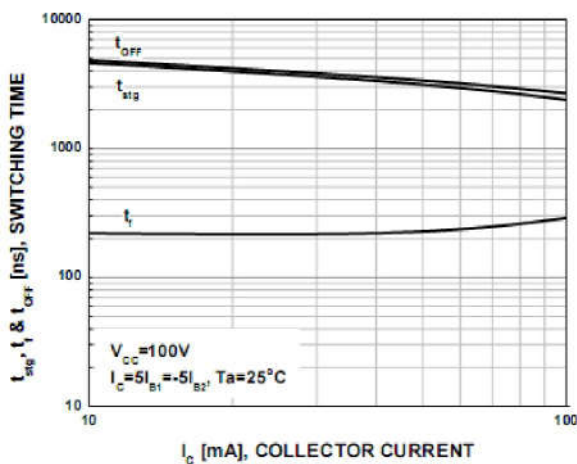


Figure 11. Resistive Load Switching

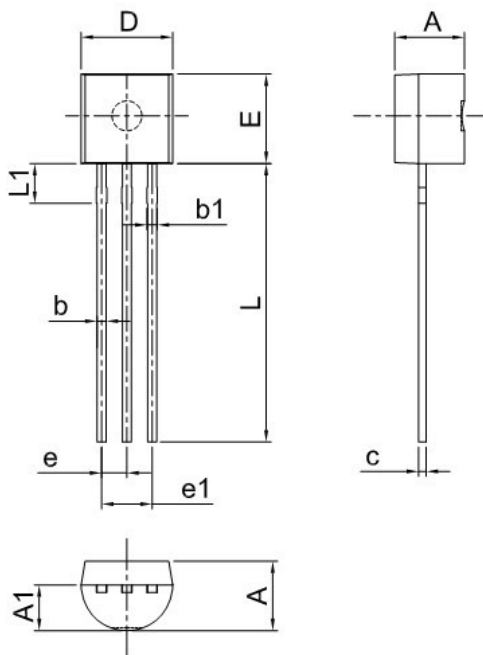
Ordering information

Package	Packing Description	Base Quantity
TO-92	Bulk	1000pcs/Bag
	Tape	2000pcs/Box

Package Dimensions

TO-92

Dim	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



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