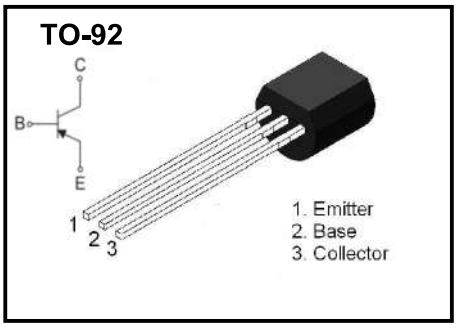
Plastic-Encapsulate Transistors

PNP General Purpose Amplifier



Marking Code	
2N3906	YFW 2N3906

Absolute Maximum Rating (Ta=25℃)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	-40	V
Collector-Emitter Voltage	BV_{CEO}	-40	V
Emitter-Base Voltage	BV_{EBO}	-5	V
Collector Current	I_C	-200	mA
Collector Power Dissipation	P_D	625	mW
Junction Temperature	Tj	150	℃
Storage Temperature	Tstg	-55～+150	℃

Electrical Characteristics (Ta=25℃)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	I_C = -10μA，I_E = 0	-40			V
Collector-emitter breakdown voltage	BV_{CEO}	I_C = -1mA，I_B = 0	-40			V
Emitter-base breakdown voltage	BV_{EBO}	I_E = -10μA，I_C = 0	-5			V
Collector cut-off current	I_{CBO}	V_{CB} = -30V，I_E = 0			-50	nA
Collector cut-off current	I_{CEO}	V_{CE} =-20V，I_B = 0			-100	nA
Emitter cut-off current	I_{EBO}	V_{EB} = -5V，I_C = 0			-50	nA
DC current gain	h_{FE}	V_{CE}=-1V，I_B=-0.1mA V_{CE}=-1V，I_B=-1.0mA V_{CE}=-1V，I_B=-10mA V_{CE}=-1V，I_B=-50mA V_{CE}=-1V，I_B=-100mA	60 80 100 60 30		300	
Collector-emitter saturation voltage	V_{CESAT}	I_C = -50mA，I_B = -5mA			-0.4	V
base -emitter saturation voltage	V_{BESAT}	I_C = -50mA，I_B = -5mA			-0.95	V
Transition frequency	f_T	V_{CE} = -20V，I_B = 10mA	250			MH_Z

Typical Characteristics

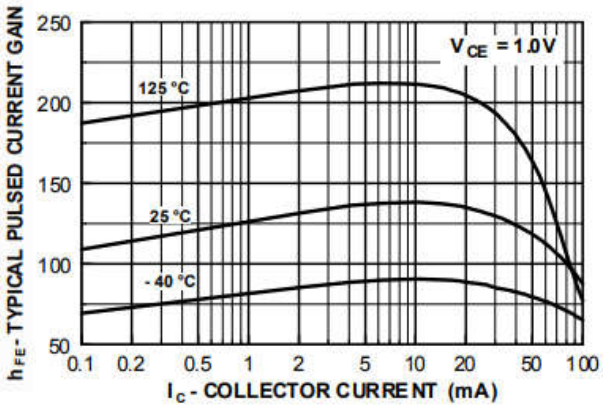


Figure 1. Typical Pulsed Current Gain vs Collector Current

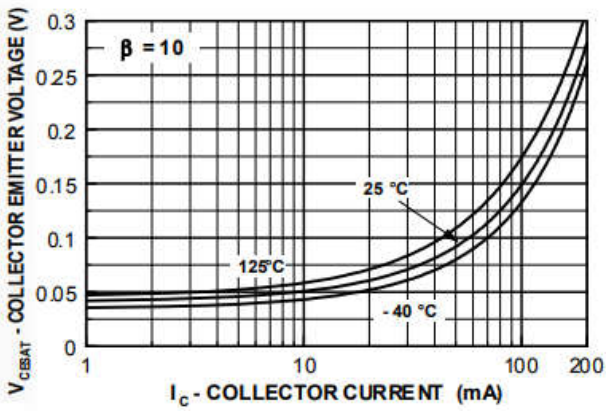


Figure 2. Collector-Emitter Saturation Voltage vs Collector Current

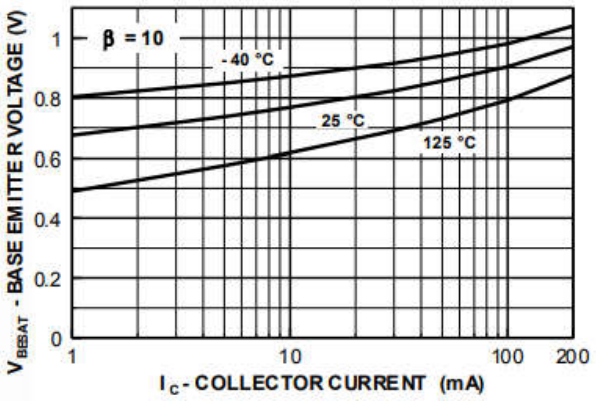


Figure 3. Base-Emitter Saturation Voltage vs Collector Current

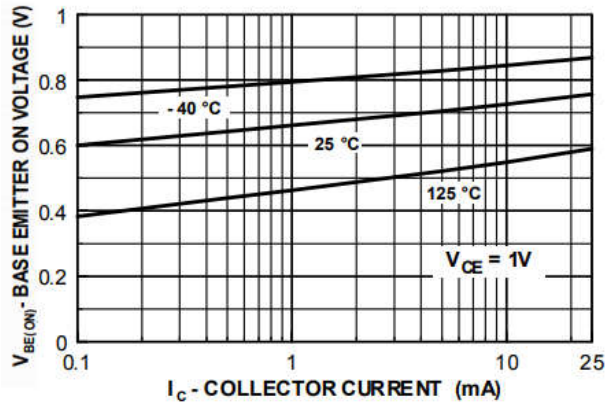


Figure 4. Base Emitter ON Voltage vs Collector Current

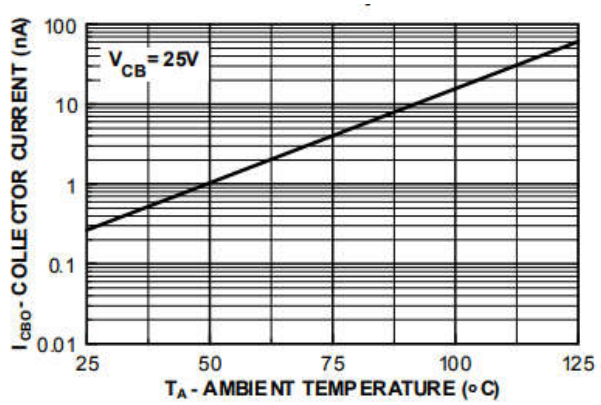


Figure 5. Collector-Cutoff Current vs Ambient Temperature

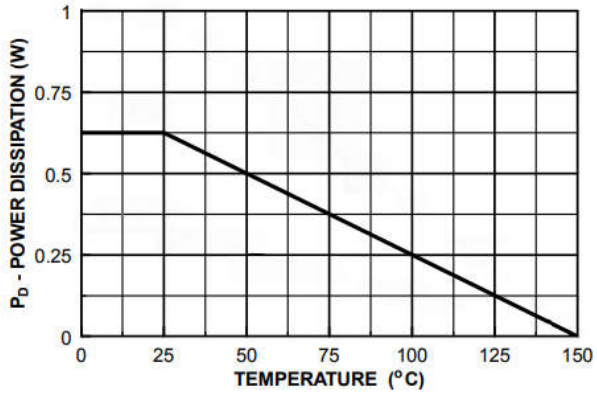


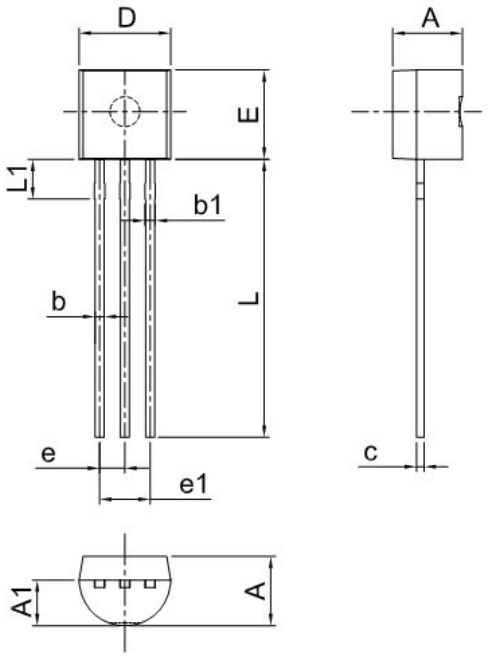
Figure 6. Power Dissipation vs Ambient Temperature

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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