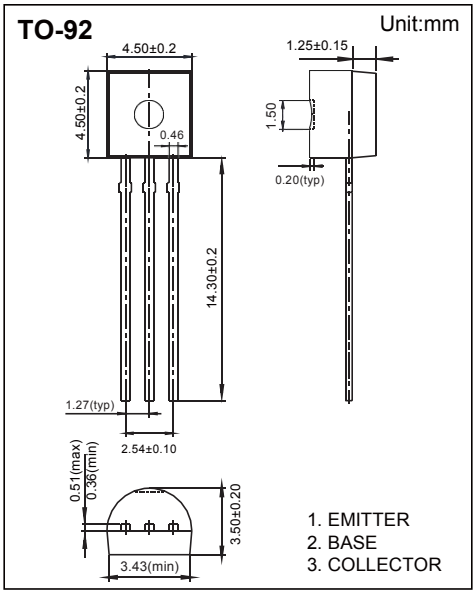
Transistor

PNP Transistors

2N3906



■ Features

- Collector current: IC=-0.2A
- Complementary to 2N3904

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-40	V
Collector - Emitter Voltage	V_{CEO}	-40	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-0.2	A
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-55 to 150	

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collecto- base breakdown voltage	V_{CBO}	I_C= -100 μA， I_E=0	-40			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= -1 mA， I_B=0	-40			
Emitter - base breakdown voltage	V_{EBO}	I_E= -100 μA， I_C=0	-5			
Collector cut-off current	I_{CBO}	V_{CB}= -40 V , I_E=0			-0.1	μA
Collector cut-off current	I_{CEX}	V_{CE}= -30 V,$V_{BE(off)}$=-3V			-0.05	
Emitter cut-off current	I_{EBO}	V_{EB}= -5V , I_C=0			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-50 mA, I_B= -5mA			-0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=-50 mA, I_B= -5mA			-0.95	
DC current gain	$h_{FE(1)}$	V_{CE}= -1V, I_C= -10mA	100		400	
	$h_{FE(2)}$	V_{CE}= -1V, I_C= -50mA	60			
	$h_{FE(3)}$	V_{CE}= -1V, I_C= -100mA	30			
Delay Time	t_d	V_{CC}=-3V,V_{BE}=-0.5V, I_C=-10mA,I_{B1}=-1mA			35	ns
Rise Time	t_r				35	
Storage Time	t_s	V_{CC}=-3V, I_C=-10mA I_{B1}=I_{B2}=-1mA			225	
Fall Time	t_f				75	
Transition frequency	f_T	V_{CE}= -20V, I_C= -10mA,f=100MHz	250			MHz

■ Classification of hFE(1)

Rank	O	Y	G
Range	100-200	200-300	300-400

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■ Typical Characterisitics