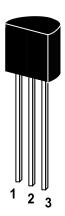
ST 2N2907 / 2N2907A

PNP Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into one group according to its DC current gain. As complementary type the NPN transistor ST 2N2222 and ST 2N2222A are recommended.

On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Base 3. Collector

TO-92 Plastic Package Weight approx. 0.19g

Absolute Maximum Ratings ($T_a = 25$ °C)

Parameter	Symbol	Value		Unit
		ST 2N2907	ST 2N2907A	Offic
Collector Base Voltage	-V _{CBO}	60		V
Collector Emitter Voltage	-V _{CEO}	40	60	V
Emitter Base Voltage	-V _{EBO}	5		V
Collector Current	-I _C	600		mA
Power Dissipation	P _{tot}	625		mW
Junction Temperature	T _j	150		°C
Storage Temperature Range	Ts	-55 to +150		°C







ST 2N2907 / 2N2907A

Characteristics at T_a = 25 °C

Parameter		Symbol	Min.	Max.	Unit
DC Current Gain					
at $-I_C = 0.1 \text{ mA}$, $-V_{CE} = 10 \text{ V}$	ST 2N2907	h _{FE}	35	-	-
	ST 2N2907A	h _{FE}	75	-	-
at $-I_C = 1 \text{ mA}$, $-V_{CE} = 10 \text{ V}$	ST 2N2907	h _{FE}	50	-	-
	ST 2N2907A	h _{FE}	100	-	-
at $-I_C = 10 \text{ mA}$, $-V_{CE} = 10 \text{ V}$	ST 2N2907	h _{FE}	75	-	-
	ST 2N2907A	h _{FE}	100	-	-
at $-I_C = 150 \text{ mA}$, $-V_{CE} = 10 \text{ V}$		h _{FE}	100	300	-
at $-I_C = 500 \text{ mA}$, $-V_{CE} = 10 \text{ V}$	ST 2N2907	h _{FE}	30	-	-
	ST 2N2907A	h _{FE}	50	-	-
Collector Cutoff Current					
at $-V_{CB} = 50 \text{ V}$	ST 2N2907	-I _{CBO}	-	20	nA
	ST 2N2907A	-I _{CBO}	-	10	nA
Collector Base Breakdown Voltage					
at - I_C = 10 μ A		-V _{(BR)CBO}	60	-	V
Collector Emitter Breakdown Voltage					
at $-I_C = 10 \text{ mA}$	ST 2N2907	-V _{(BR)CEO}	40	-	V
	ST 2N2907A	-V _{(BR)CEO}	60	-	V
Emitter Base Breakdown Voltage					
at -I _E = 10 μA		-V _{(BR)EBO}	5	-	V
Collector Saturation Voltage					
at $-I_C = 150 \text{ mA}$, $-I_B = 15 \text{ mA}$		-V _{CE(sat)}	-	0.4	V
at $-I_C = 500 \text{ mA}$, $-I_B = 50 \text{ mA}$		-V _{CE(sat)}	-	1.6	V
Base Saturation Voltage					
at $-I_C = 150 \text{ mA}$, $-I_B = 15 \text{ mA}$		-V _{BE(sat)}	-	1.3	V
at $-I_C = 500 \text{ mA}$, $-I_B = 50 \text{ mA}$		-V _{BE(sat)}	-	2.6	V
Gain Bandwidth Product					
at $-I_C = 50 \text{ mA}$, $-V_{CE} = 20 \text{ V}$, $f = 100 \text{ MHz}$		f _T	200	-	MHz
Collector Output Capacitance					
at $-V_{CB} = 10 \text{ V}$, f = 1 MHz		$C_{\sf ob}$	-	8	pF
Input Capacitance					
at $-V_{BE} = 2 V$, $f = 1 MHz$		C_{ib}	-	30	pF



SEMTECH ELECTRONICS LTD.









Dated: 23/12/2005