

ST 2N2907 / 2N2907A

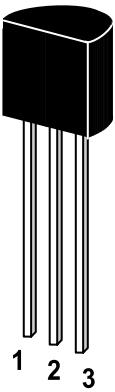
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PNP Silicon Epitaxial Planar Transistor

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.

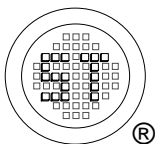


1. Emitter 2. Base 3. Collector

TO-92 Plastic Package
Weight approx. 0.19g

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value		Unit
		ST 2N2907	ST 2N2907A	
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		$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +150		$^\circ\text{C}$



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 014



ISO 9001:2000
Certificate No. 014

Dated : 23/12/2005

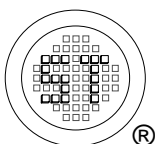
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ST 2N2907 / 2N2907A

Characteristics at $T_a = 25^\circ\text{C}$

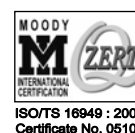
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Parameter		Symbol	Min.	Max.	Unit
DC Current Gain	at $-I_C = 0.1\text{ mA}$, $-V_{CE} = 10\text{ V}$	ST 2N2907	h_{FE}	35	-
		ST 2N2907A	h_{FE}	75	-
	at $-I_C = 1\text{ mA}$, $-V_{CE} = 10\text{ V}$	ST 2N2907	h_{FE}	50	-
		ST 2N2907A	h_{FE}	100	-
	at $-I_C = 10\text{ mA}$, $-V_{CE} = 10\text{ V}$	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	$-I_{CBO}$	-	nA
		ST 2N2907A	$-I_{CBO}$	10	nA
Collector Base Breakdown Voltage	at $-I_C = 10\text{ }\mu\text{A}$		$-V_{(BR)CBO}$	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 $-I_E = 10\text{ }\mu\text{A}$		$-V_{(BR)EBO}$	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 $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$		C_{ob}	8	pF
Input Capacitance	at $-V_{BE} = 2\text{ V}$, $f = 1\text{ MHz}$		C_{ib}	30	pF



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