

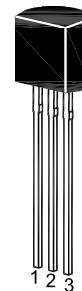
2N2907 / 2N2907A

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.

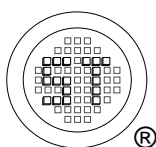
On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Base 3. Collector
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{\text{CBO}}$	60	V
Collector Emitter Voltage	$-V_{\text{CEO}}$	40 60	V
Emitter Base Voltage	$-V_{\text{EBO}}$	5	V
Collector Current	$-I_{\text{C}}$	600	mA
Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$



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ISO 9001 : 2008
Certificate No. 16713000



ISO 14001 : 2004
Certificate No. 7116



ISO 9001 : 2008
Certificate No. 5713410



BS-OHSAS 18001 : 2007
Certificate No. 7116



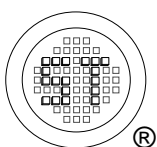
IECQ QC 080000
Certificate No. PRC-1824-148-1

Dated: 12/04/2016 Re: 02

2N2907 / 2N2907A

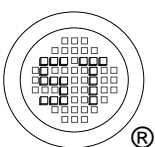
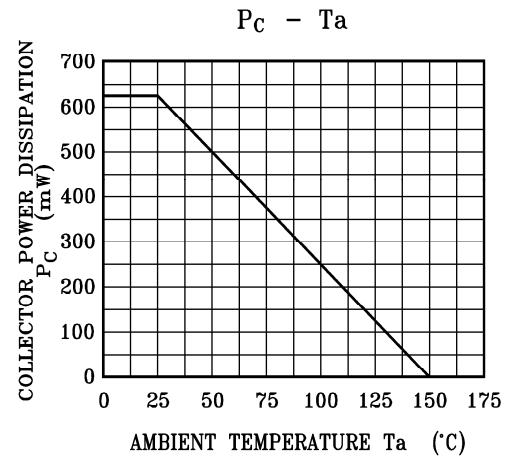
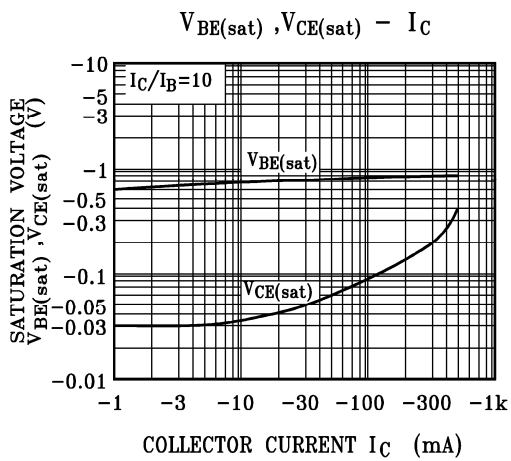
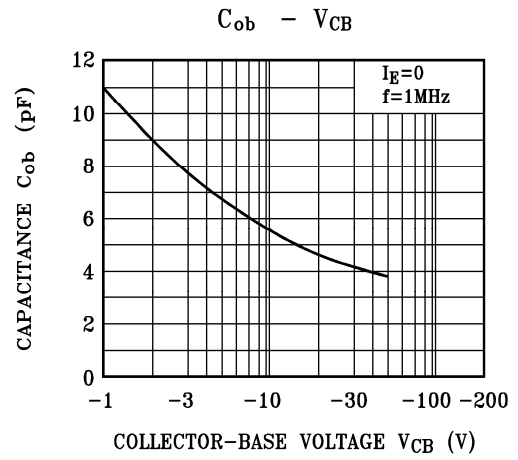
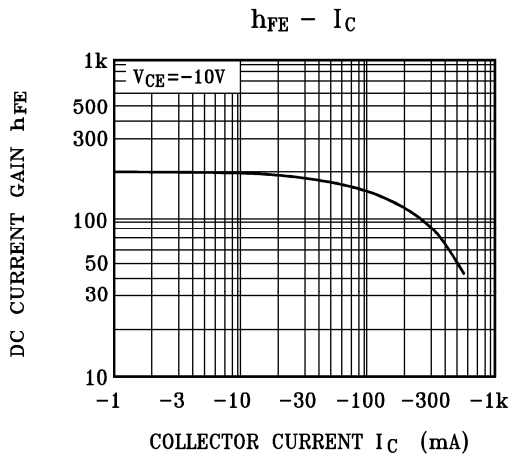
Characteristics at $T_a = 25^\circ\text{C}$

Parameter		Symbol	Min.	Max.	Unit
DC Current Gain at $-I_C = 0.1 \text{ mA}$, $-V_{CE} = 10 \text{ V}$ at $-I_C = 1 \text{ mA}$, $-V_{CE} = 10 \text{ V}$ at $-I_C = 10 \text{ mA}$, $-V_{CE} = 10 \text{ V}$ at $-I_C = 150 \text{ mA}$, $-V_{CE} = 10 \text{ V}$ at $-I_C = 500 \text{ mA}$, $-V_{CE} = 10 \text{ V}$	2N2907	h_{FE}	35	-	-
	2N2907A	h_{FE}	75	-	-
	2N2907	h_{FE}	50	-	-
	2N2907A	h_{FE}	100	-	-
	2N2907	h_{FE}	75	-	-
	2N2907A	h_{FE}	100	-	-
Collector Base Cutoff Current at $-V_{CB} = 50 \text{ V}$	2N2907	$-I_{CBO}$	-	20	nA
	2N2907A	$-I_{CBO}$	-	10	nA
Collector Base Breakdown Voltage at $-I_C = 10 \mu\text{A}$		$-V_{(BR)CBO}$	60	-	V
Collector Emitter Breakdown Voltage at $-I_C = 10 \text{ mA}$	2N2907	$-V_{(BR)CEO}$	40	-	V
	2N2907A	$-V_{(BR)CEO}$	60	-	V
Emitter Base Breakdown Voltage at $-I_E = 10 \mu\text{A}$		$-V_{(BR)EBO}$	5	-	V
Collector Saturation Voltage at $-I_C = 150 \text{ mA}$, $-I_B = 15 \text{ mA}$ at $-I_C = 500 \text{ mA}$, $-I_B = 50 \text{ mA}$		$-V_{CE(sat)}$	-	0.4	V
		$-V_{CE(sat)}$	-	1.6	V
Base Saturation Voltage at $-I_C = 150 \text{ mA}$, $-I_B = 15 \text{ mA}$ at $-I_C = 500 \text{ mA}$, $-I_B = 50 \text{ mA}$		$-V_{BE(sat)}$	-	1.3	V
		$-V_{BE(sat)}$	-	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
Turn-on Time at $-V_{CC} = 30 \text{ V}$, $-I_C = 150 \text{ mA}$, $-I_{B1} = 15 \text{ mA}$		t_{on}	-	45	ns
Delay Time at $-V_{CC} = 30 \text{ V}$, $-I_C = 150 \text{ mA}$, $-I_{B1} = 15 \text{ mA}$		t_d	-	10	ns
Rise Time at $-V_{CC} = 30 \text{ V}$, $-I_C = 150 \text{ mA}$, $-I_{B1} = 15 \text{ mA}$		t_r	-	40	ns
Turn-off Time at $-V_{CC} = 6 \text{ V}$, $-I_C = 150 \text{ mA}$, $-I_{B1} = -I_{B2} = 15 \text{ mA}$		t_{off}	-	100	ns
Storage Time at $-V_{CC} = 6 \text{ V}$, $-I_C = 150 \text{ mA}$, $-I_{B1} = -I_{B2} = 15 \text{ mA}$		t_s	-	80	ns
Fall Time at $-V_{CC} = 6 \text{ V}$, $-I_C = 150 \text{ mA}$, $-I_{B1} = -I_{B2} = 15 \text{ mA}$		t_f	-	30	ns



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