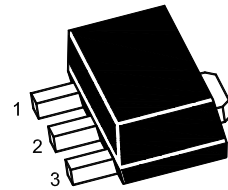


PNP Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into one group according to its DC current gain.

MARKING: 2N2907U:2907
2N2907AU:2907A



1.Base 2.Collector 3.Emitter
SOT-89 Plastic Package

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

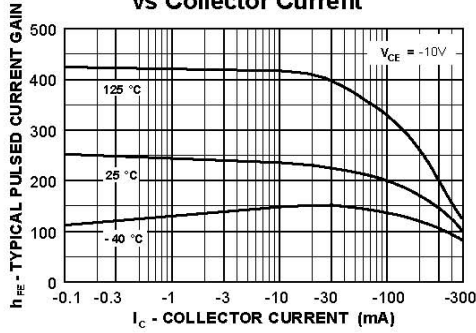
Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	60	V
Collector Emitter Voltage	$-V_{CEO}$	40 60	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	600	mA
Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to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



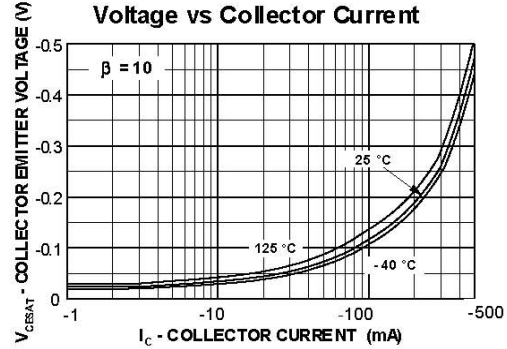
Characteristics at $T_a = 25^\circ\text{C}$

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 $-I_C = 500\text{ mA}$, $-V_{CE} = 10\text{ V}$	2N2907U h_{FE}	35	-	-
	2N2907AU h_{FE}	75	-	-
	2N2907U h_{FE}	50	-	-
	2N2907AU h_{FE}	100	-	-
	2N2907U h_{FE}	75	-	-
	2N2907AU h_{FE}	100	-	-
Collector Base Cutoff Current at $-V_{CB} = 50\text{ V}$	2N2907U $-I_{CBO}$	-	20	nA
	2N2907AU $-I_{CBO}$	-	10	nA
Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$	$-V_{(BR)CBO}$	60	-	V
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$	2N2907U $-V_{(BR)CEO}$	40	-	V
	2N2907AU $-V_{(BR)CEO}$	60	-	V
Emitter Base Breakdown Voltage at $-I_E = 10\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	5	-	V
Collector Saturation Voltage at $-I_C = 150\text{ mA}$, $-I_B = 15\text{ mA}$ 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

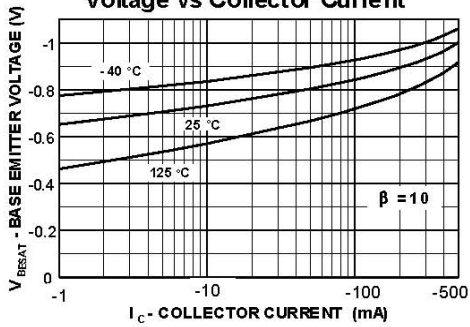
Typical Pulsed Current Gain vs Collector Current



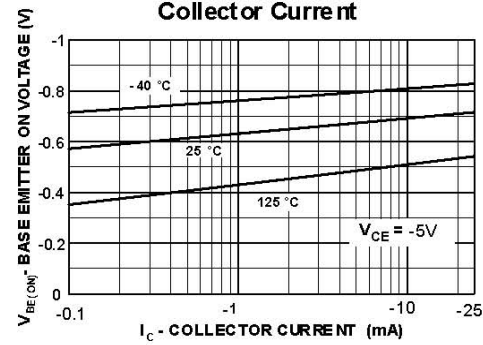
Collector-Emitter Saturation Voltage vs Collector Current



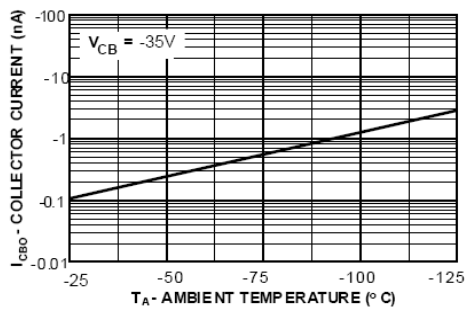
Base-Emitter Saturation Voltage vs Collector Current



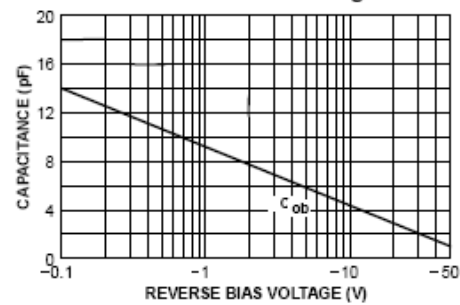
Base Emitter ON Voltage vs Collector Current



Collector-Cutoff Current vs Ambient Temperature



Input and Output Capacitance vs Reverse Bias Voltage



Pc - Ta

