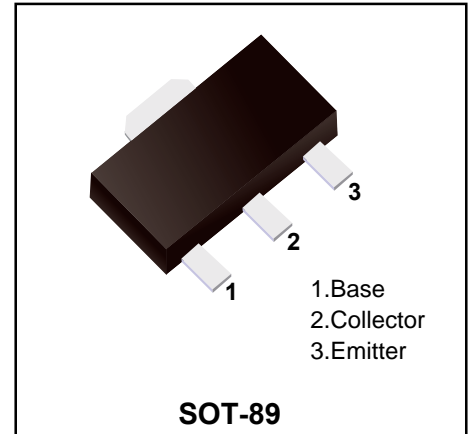


**PNP Silicon Epitaxial Planar Transistor**

for switching and AF amplifier applications.

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



<b>Marking Code</b>	
<b>PXT2907</b>	<b>2907</b>
<b>PXT2907A</b>	<b>2907A</b>

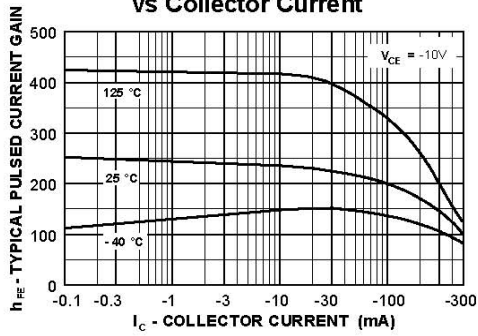
**Absolute Maximum Ratings (Ta = 25°C)**

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	°C
Storage Temperature Range	$T_{stg}$	- 55 to + 150	°C

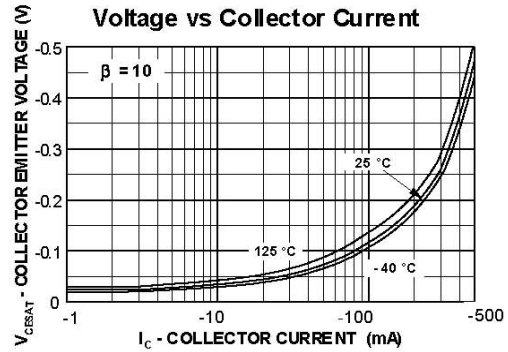
**Characteristics at Ta = 25 °C**

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $-I_C = 0.1 \text{ mA}$ , $-V_{CE} = 10 \text{ V}$	PXT2907 PXT2907A $h_{FE}$	35	-	-
at $-I_C = 1 \text{ mA}$ , $-V_{CE} = 10 \text{ V}$	PXT2907 PXT2907A $h_{FE}$	75	-	-
at $-I_C = 10 \text{ mA}$ , $-V_{CE} = 10 \text{ V}$	PXT2907 PXT2907A $h_{FE}$	50	-	-
at $-I_C = 10 \text{ mA}$ , $-V_{CE} = 10 \text{ V}$	PXT2907 PXT2907A $h_{FE}$	100	-	-
at $-I_C = 150 \text{ mA}$ , $-V_{CE} = 10 \text{ V}$	PXT2907 PXT2907A $h_{FE}$	75	-	-
at $-I_C = 150 \text{ mA}$ , $-V_{CE} = 10 \text{ V}$	PXT2907 PXT2907A $h_{FE}$	100	-	-
at $-I_C = 500 \text{ mA}$ , $-V_{CE} = 10 \text{ V}$	PXT2907 PXT2907A $h_{FE}$	100	300	-
at $-I_C = 500 \text{ mA}$ , $-V_{CE} = 10 \text{ V}$	PXT2907 PXT2907A $h_{FE}$	30	-	-
at $-I_C = 500 \text{ mA}$ , $-V_{CE} = 10 \text{ V}$	PXT2907 PXT2907A $h_{FE}$	50	-	-
Collector Base Cutoff Current at $-V_{CB} = 50 \text{ V}$	PXT2907 PXT2907A $I_{CBO}$	-	-20	nA
Collector Base Cutoff Current at $-V_{CB} = 50 \text{ V}$	PXT2907 PXT2907A $I_{CBO}$	-	-10	nA
Collector Base Breakdown Voltage at $-I_C = 10 \mu\text{A}$	$V_{(BR)CBO}$	-60	-	V
Collector Emitter Breakdown Voltage at $-I_C = 10 \text{ mA}$	PXT2907 PXT2907A $V_{(BR)CEO}$	-40	-	V
Collector Emitter Breakdown Voltage at $-I_C = 10 \text{ mA}$	PXT2907 PXT2907A $V_{(BR)CEO}$	-60	-	V
Emitter Base Breakdown Voltage at $-I_E = 10 \mu\text{A}$	$V_{(BR)EBO}$	-5	-	V
Collector Saturation Voltage at $-I_C = 150 \text{ mA}$ , $-I_B = 15 \text{ mA}$	$V_{CE(sat)}$	-	-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
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

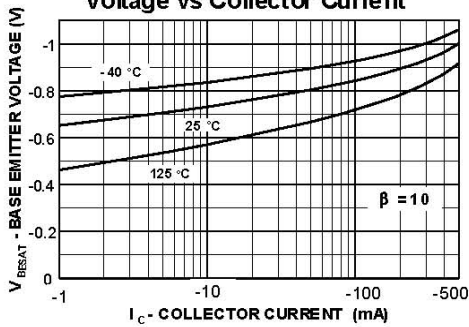
**Typical Pulsed Current Gain vs Collector Current**



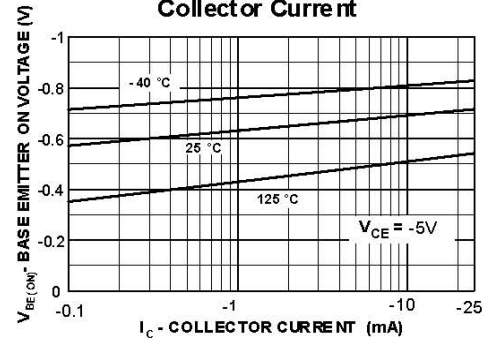
**Collector-Emitter Saturation Voltage vs Collector Current**



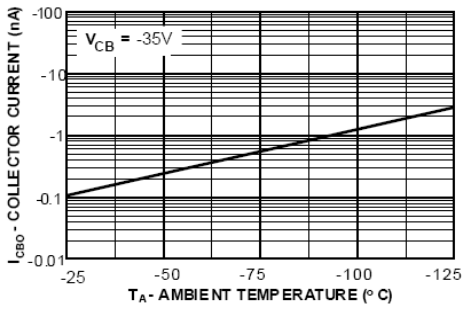
**Base-Emitter Saturation Voltage vs Collector Current**



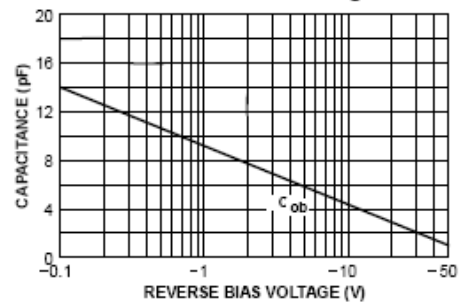
**Base Emitter ON Voltage vs Collector Current**



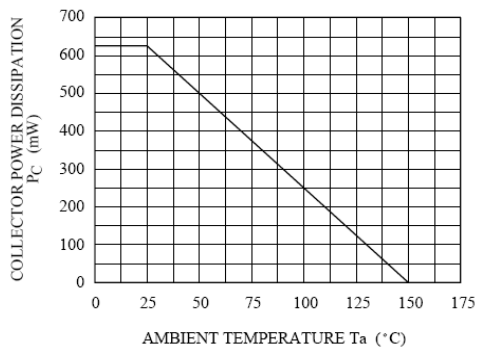
**Collector-Cutoff Current vs Ambient Temperature**



**Input and Output Capacitance vs Reverse Bias Voltage**



**Pc - Ta**



**Ordering information**

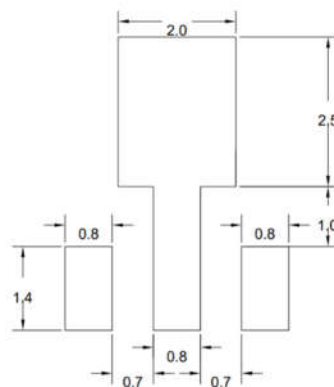
Package	Packing Description	Base Quantity	Packing Quantity
SOT-89	Tape/Reel, 7" reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton

**Package Dimensions**

**SOT-89**

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.40	1.60	0.055	0.063
b	0.32	0.52	0.013	0.020
b1	0.38	0.58	0.015	0.023
c	0.35	0.45	0.014	0.018
D	4.40	4.60	0.173	0.181
D1	1.45	1.65	0.057	0.065
D2	1.70	1.80	0.067	0.071
E	2.30	2.60	0.091	0.102
E1	3.95	4.25	0.156	0.167
E2	1.80	2.00	0.071	0.079
e	1.40	1.60	0.055	0.063
e1	2.80	3.20	0.110	0.126
L	0.90	1.20	0.035	0.047

**The recommended mounting pad size**



UNIT:MM

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