

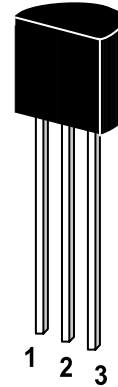
ST 2SC1907

NPN Silicon Epitaxial Planar Transistor

for UHF TV Tuner and Local Oscillator.

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

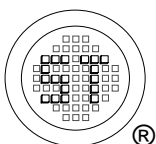
On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Collector 3. Base
TO-92 Plastic Package
Weight approx. 0.19g

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

	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	30	V
Collector Emitter Voltage	V_{CEO}	19	V
Emitter Base Voltage	V_{EBO}	2	V
Collector Current	I_{C}	50	mA
Emitter Current	$-I_{\text{E}}$	50	mA
Power Dissipation	P_{tot}	300	mW
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{s}	-55 to +150	$^\circ\text{C}$



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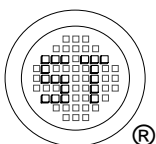


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Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=10\text{V}$, $I_C=10\text{mA}$ Current Gain Group	h_{FE}	40	-	-	-
Collector Base Breakdown voltage at $I_C=10\text{ }\mu\text{A}$	$V_{(BR)CBO}$	30	-	-	V
Collector Emitter Breakdown Voltage at $I_C=3\text{mA}$	$V_{(BR)CEO}$	19	-	-	V
Emitter Base Breakdown Voltage at $I_E=10\text{ }\mu\text{A}$	$V_{(BR)EBO}$	2	-	-	V
Collector Cutoff Current at $V_{CB}=10\text{V}$	I_{CBO}	-	-	0.5	μA
Collector Emitter Saturation Voltage at $I_C=20\text{mA}$, $I_B=4\text{mA}$	$V_{CE(sat)}$	-	0.2	1	V
Transition Frequency at $V_{CE}=10\text{V}$, $I_C=10\text{mA}$	f_T	900	1100	-	MHz
Collector Output Capacitance at $V_{CB}=10\text{V}$, $f=1\text{MHz}$	C_{OB}	-	1	2	pF
Base Time Constant at $V_{CB}=10\text{V}$, $I_C=10\text{mA}$ $f=31.8\text{ MHz}$	$\tau_{bb'} \cdot C_c$	-	10	25	ps
Oscillation Output Power at $V_{CB}=10\text{V}$, $I_C=10\text{mA}$ $f=930\text{ MHz}$	P_{out}	-	8	-	mW



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ISO/TS 16949 : 2002
Certificate No. 05103



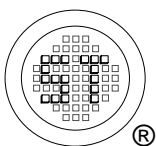
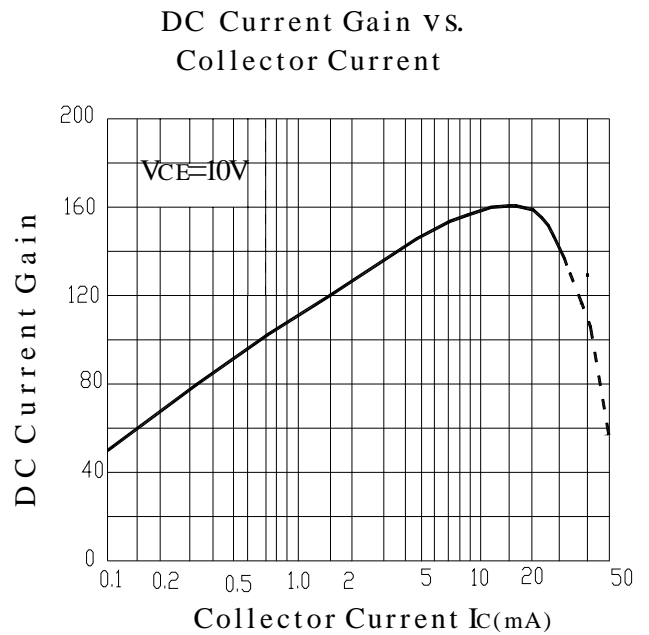
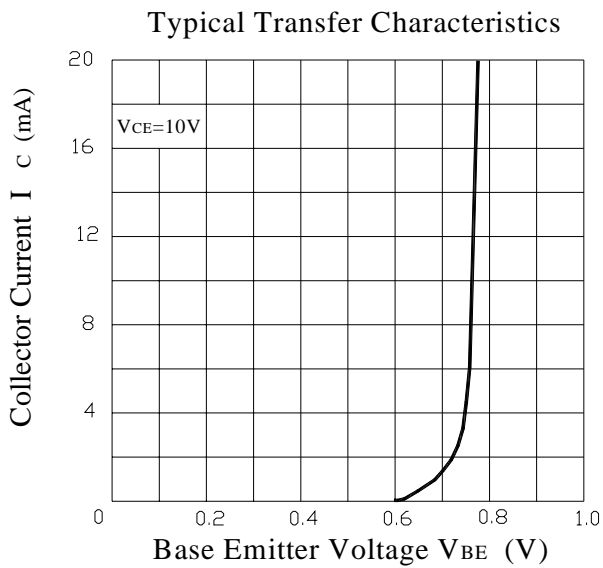
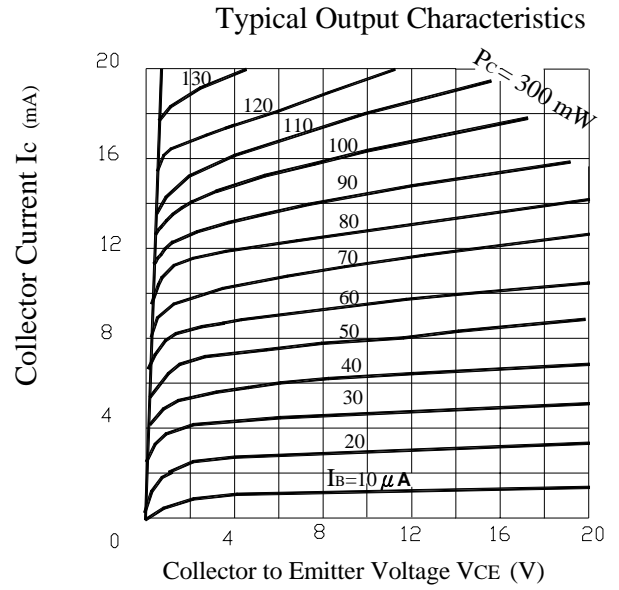
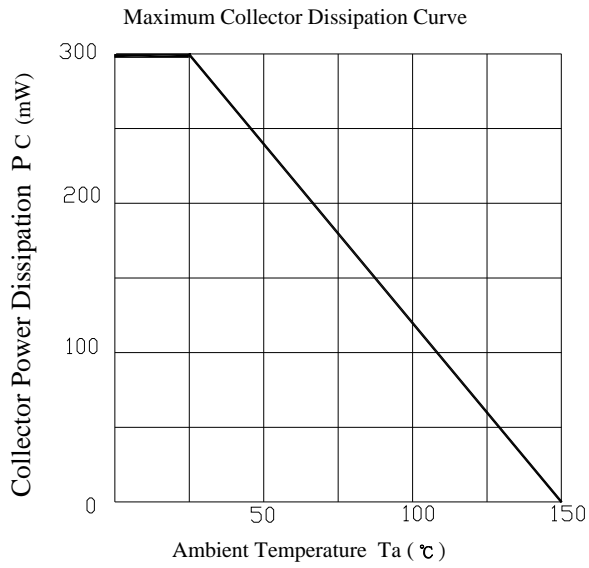
ISO 14001:2004
Certificate No. 7116



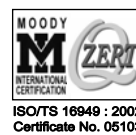
ISO 9001:2000
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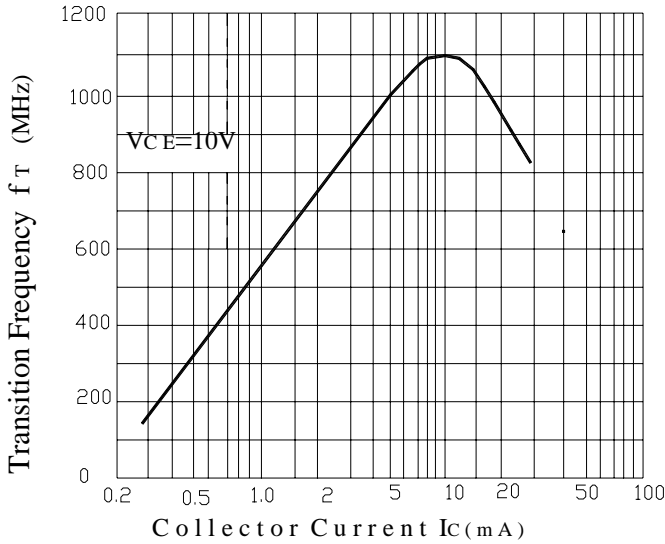


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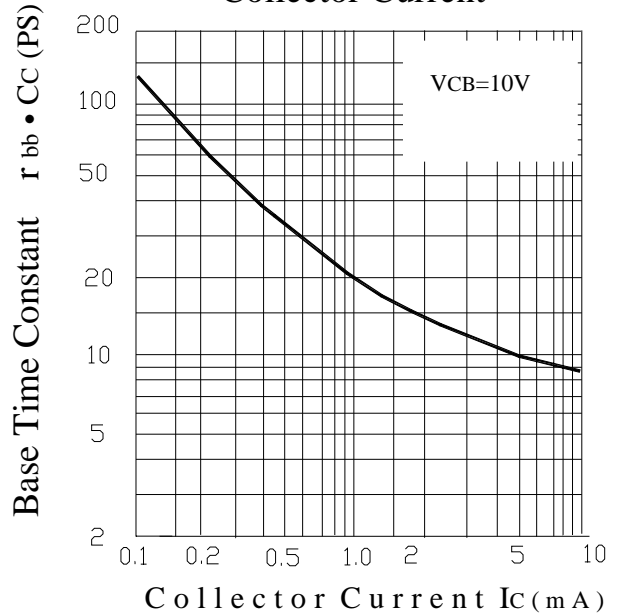


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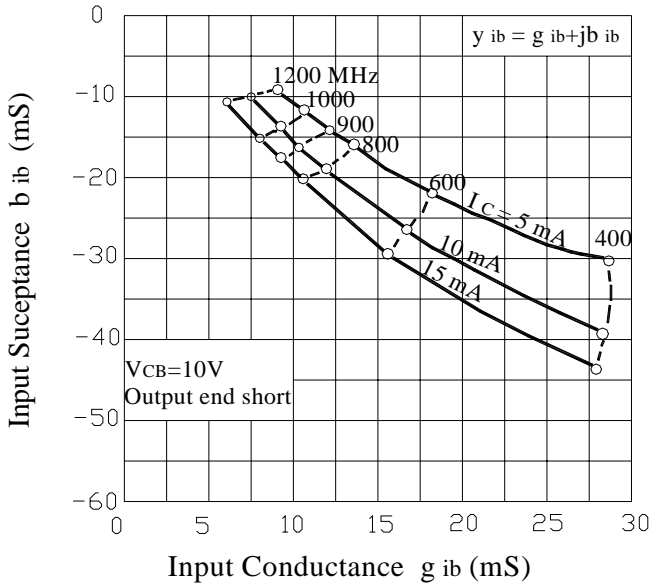
Transition Frequency vs. Collector Current



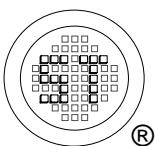
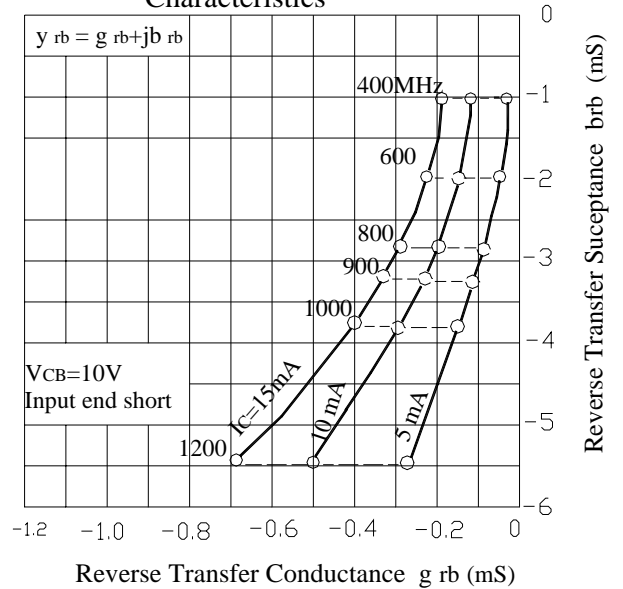
Base Time Constant vs. Collector Current



Input Admittance Characteristics



Reverse Transfer Admittance Characteristics



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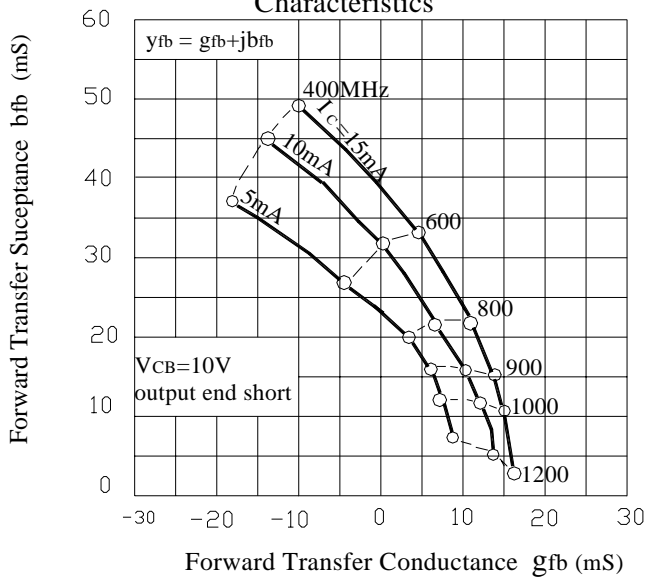
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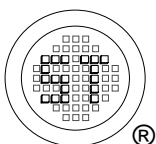
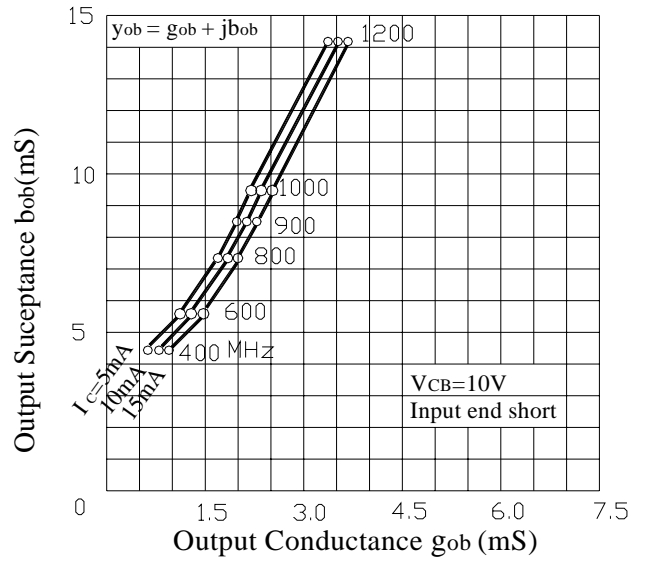
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Forward Transfer Admittance Characteristics



Output Admittance Characteristics



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