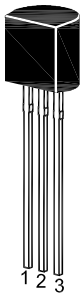
9015

PNP Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into four groups, A, B, C and D, according to its DC current gain. As complementary type the NPN transistor ST 9014 is recommended.



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

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	50	V
Collector Emitter Voltage	$-V_{CEO}$	45	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	100	mA
Power Dissipation	P_{tot}	450	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter		Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE}$ = 5 V, $-I_C$ = 1 mA	Current Gain Group A B C D	h_{FE} h_{FE} h_{FE} h_{FE}	60 100 200 400	150 300 600 800	- - -
Collector Base Cutoff Current at $-V_{CB}$ = 50 V		$-I_{CBO}$	-	50	nA
Emitter Base Cutoff Current at $-V_{EB}$ = 5 V		$-I_{EBO}$	-	50	nA
Collector Base Breakdown Voltage at $-I_C$ = 100 µA		$-V_{(BR)CBO}$	50	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 1 mA		$-V_{(BR)CEO}$	45	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 100 µA		$-V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 100 mA, $-I_B$ = 5 mA		$-V_{CE(sat)}$	-	0.65	V
Base Emitter Saturation Voltage at $-I_C$ = 100 mA, $-I_B$ = 5 mA		$-V_{BE(sat)}$	-	1	V
Gain Bandwidth Product at $-V_{CE}$ = 10 V, $-I_C$ = 10 mA		f_T	100	-	MHz
Output Capacitance at $-V_{CB}$ = 10 V, f = 1 MHz		C_{OB}	-	7	pF

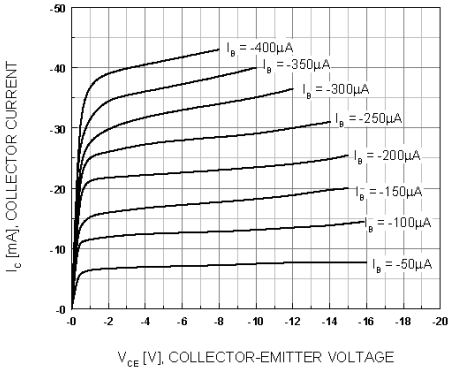


Figure 1. Static Characteristic

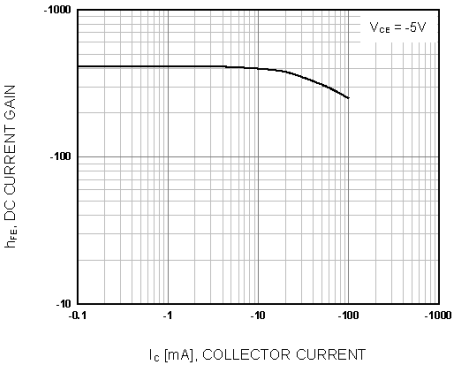


Figure 2. DC current Gain

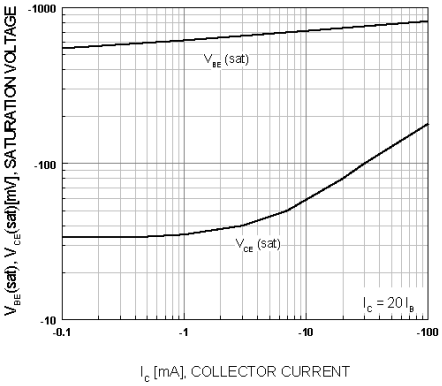


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

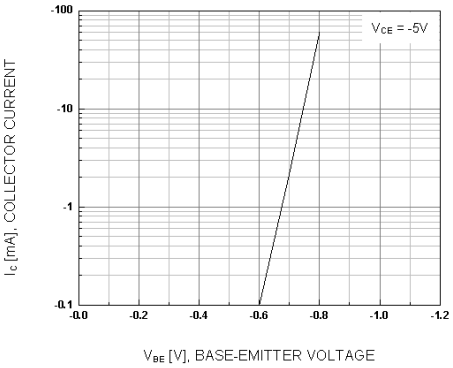


Figure 4. Base-Emitter On Voltage

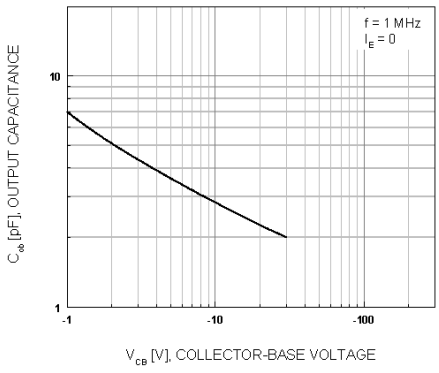


Figure 5. Collector Output Capacitance

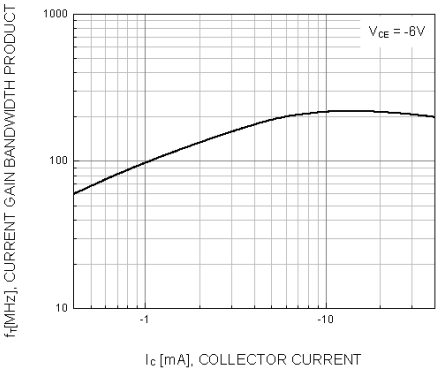


Figure 6. Current Gian Bandwidth Product