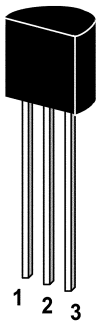
FUKUCOM COMPANY LTD.
福 靈 有 限 公 司
FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.
TEL: 852-2790 0314 FAX: 852-2790 0206

ST 9012

PNP Silicon Epitaxial Planar Transistor
for switching and amplifier applications. Especially suitable for AF-driver stages and low power output stages.

The transistor is subdivided into three groups, G, H and I, according to its DC current gain. As complementary type the NPN transistor ST 9013 is recommended.

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



1. Emitter 2. Base 3. Collector

TO-92 Plastic Package
Weight approx. 0.19g

Absolute Maximum Ratings (T_a = 25 °C)

	Symbol	Value	Unit
Collector Emitter Voltage	$-V_{CEO}$	30	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	800	mA
Peak Collector Current	$-I_{CM}$	1	A
Base Current	$-I_B$	100	mA
Power Dissipation	P_{tot}	625[1)]	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	-55 to +150	°C

[1)] Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case

SEMTECH
Dated : 07/12/2002

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Characteristics at T_{amb}=25 °C

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at $-V_{CE}$=1V, $-I_C$=50mA					
Current Gain Group G	h_{FE}	110	-	183	-
H	h_{FE}	177	-	250	-
I	h_{FE}	250	-	380	-
at $-V_{CE}$=1V, $-I_C$=500mA	h_{FE}	40	-	-	-
Collector Cutoff Current					
at $-V_{CB}$=31V	$-I_{CBO}$	-	-	100	nA
Collector Emitter Breakdown Voltage					
at $-I_C$=1mA	$-V_{(BR)CEO}$	30	-	-	V
Emitter Base Cutoff Current					
at $-V_{EB}$=5.1V	$-I_{EBO}$	-	-	100	nA
Collector Saturation Voltage					
at $-I_C$=500mA, $-I_B$=20mA	$-V_{CE(sat)}$	-	-	0.7	V
Base Saturation Voltage					
at $-I_C$=500mA, $-I_B$=20mA	$-V_{BE(sat)}$	-	-	1.2	V
Base Emitter Voltage					
at $-V_{CE}$=1V, $-I_C$=50mA	$-V_{BE}$	0.6	-	0.75	V
Gain Bandwidth Product					
at $-V_{CE}$=5V, $-I_C$=10mA, f=50MHz	f_T	-	100	-	MHz
Collector Base Capacitance					
at $-V_{CB}$=10V, f=1MHz	C_{CBO}	-	12	-	pF
Thermal Resistance Junction to Ambient	R_{thA}	-	-	200[1)]	K/W
[1)] Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case					

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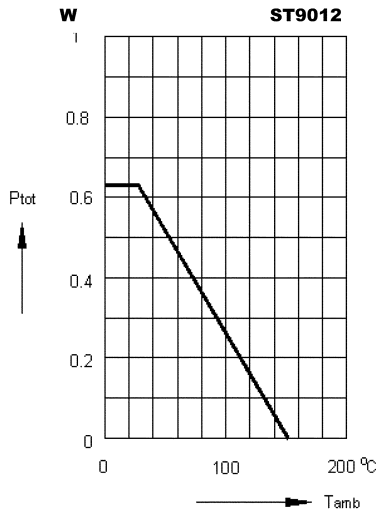
Admissible power dissipation

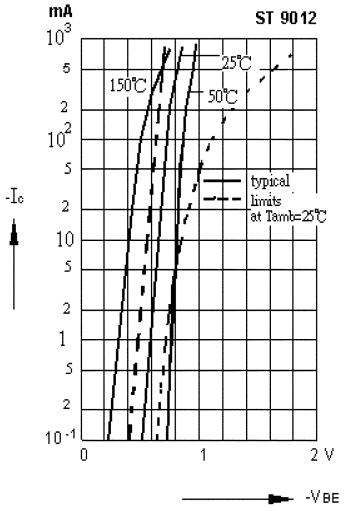
Versus ambient temperature

Valid provided that leads are kept at ambient

temperature at a distance of 2 mm from case



Collector current
versus base emitter voltage

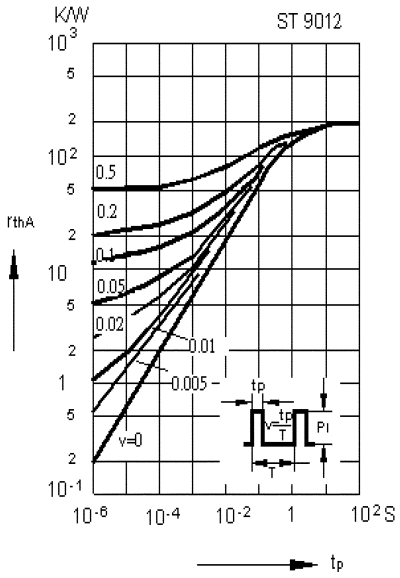


Pulse thermal resistance

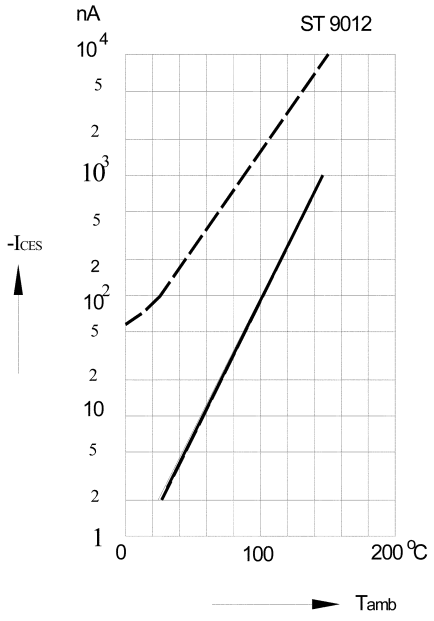
versus pulse duration

Valid provided that leads are kept

at ambient temperature at a distance of 2mm from



Collector cutoff current
versus ambient temperature



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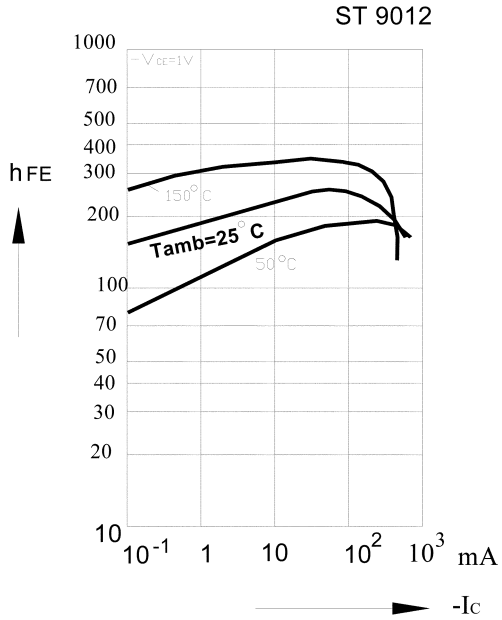
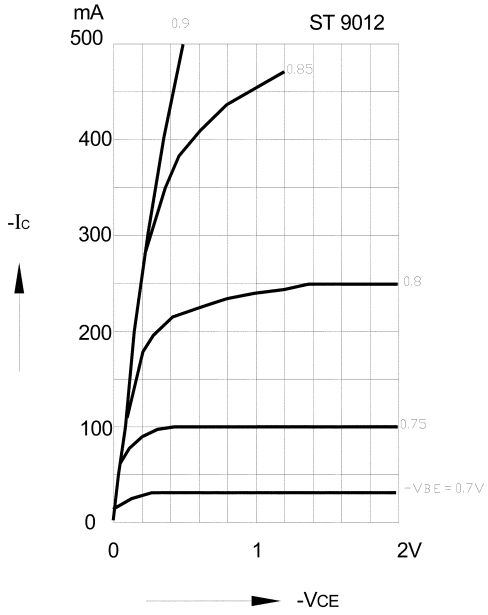
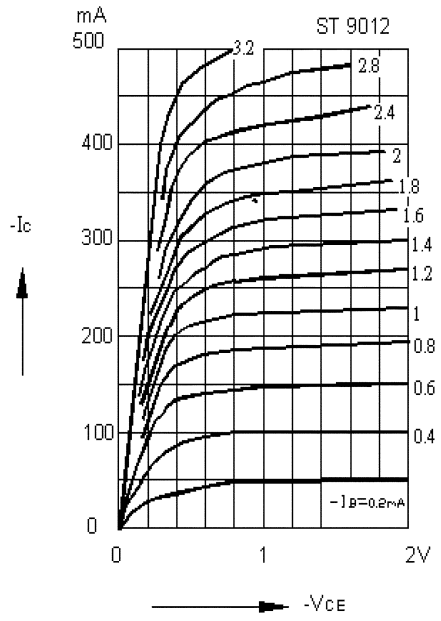
DC current gain versus collector current



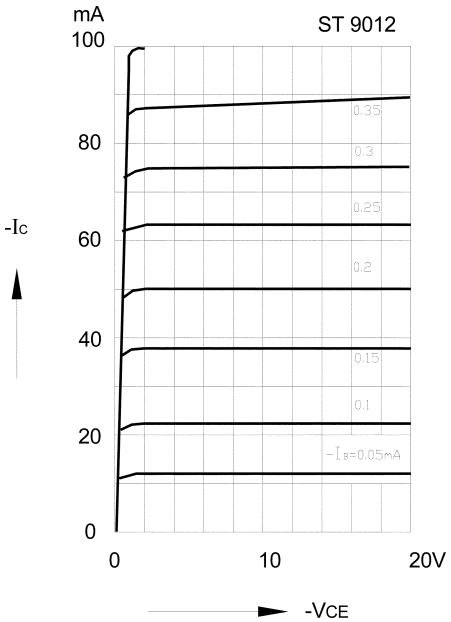
Common emitter collector characteristic



Common emitter collector characteristics



Common emitter collector characteristics



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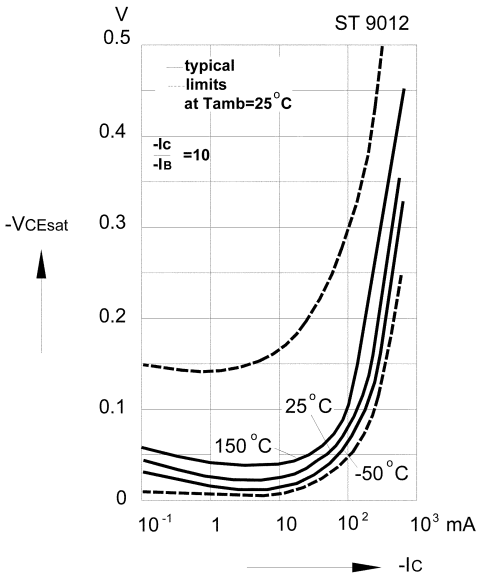
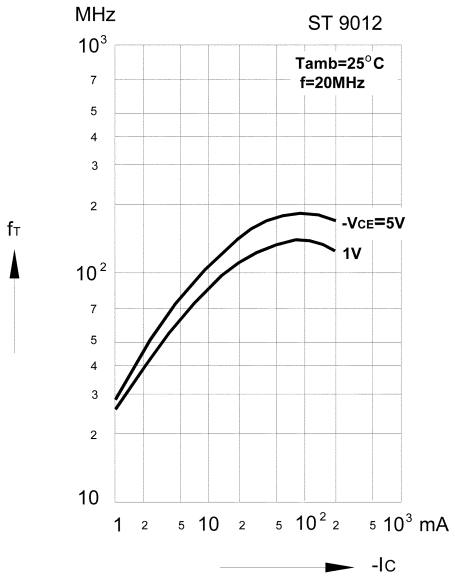
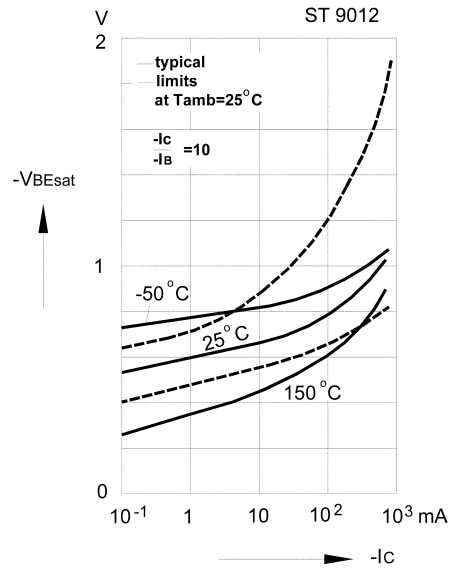
Collector saturation voltage versus collector current



Gain bandwith product versus collector current



Base saturation voltage versus collector current



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