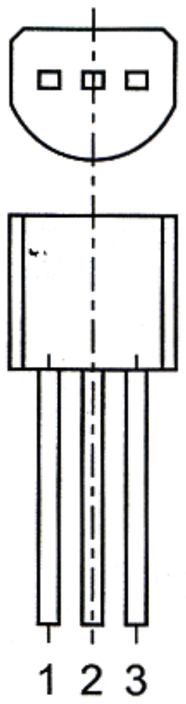
TO-92 Plastic-Encapsulate Transistors

S9012 TRANSISTOR(PNP)



TO-92

1.EMITTER

2.BASE

3.COLLECTOR

FEATURES

Power dissipation

P_{CM}: 0.625W (Tamb=25℃)

Collector current

I_{CM}: -0.5 A

Collector-base voltage

$V_{(BR)CBO}$: -40 V

Operating and storage junction temperature range

T_J, T_{stg}: -55℃ to + 150℃

ELECTRICAL CHARACTERISTICS

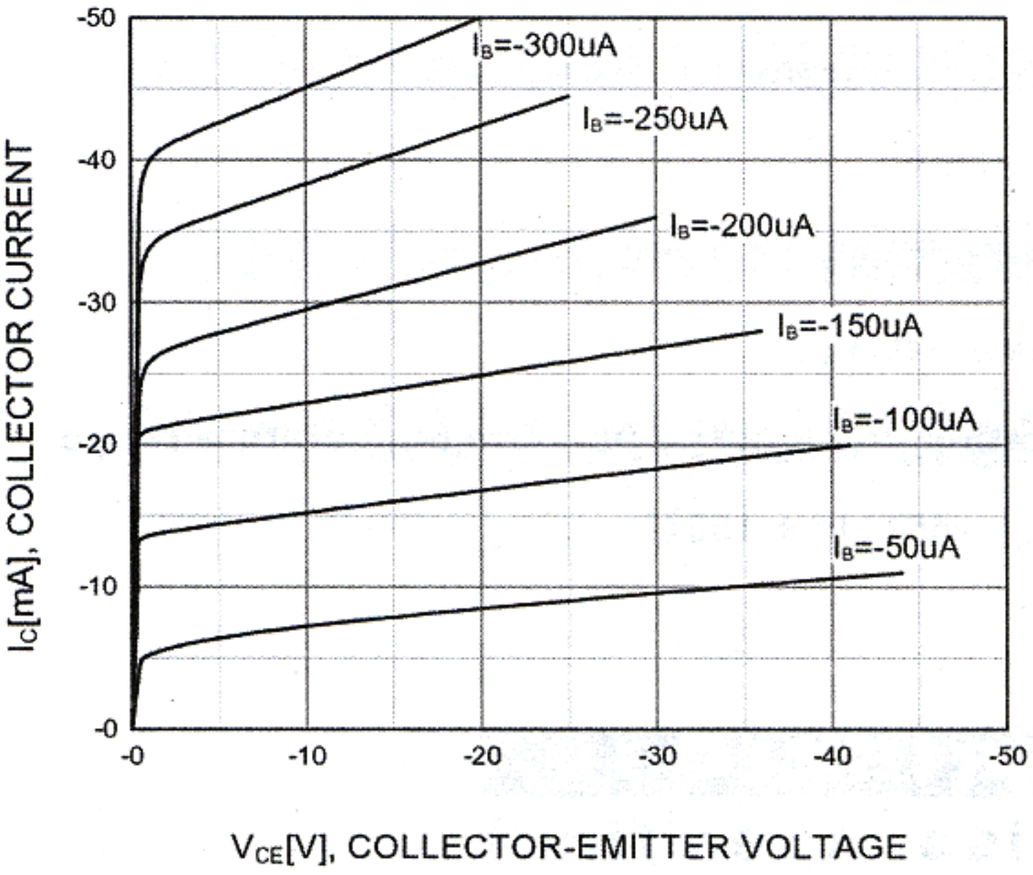
(Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -100 μ A, I_E=0	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= -0.1 mA, I_B=0	-25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -100 μ A, I_C=0	-5		V
Collector cut-off current	I_{CBO}	V_{CB}= -40 V, I_E=0		-0.1	μ A
Collector cut-off current	I_{CEO}	V_{CE}= -20 V, I_B=0		-0.2	μ A
Emitter cut-off current	I_{EBO}	V_{EB}= -5 V, I_C=0		-0.1	μ A
DC current gain	$h_{FE(1)}$	V_{CE}= -1 V, I_C= -50 mA	64	300	
	$h_{FE(2)}$	V_{CE}= -1 V, I_C= -500 mA	40		
Collector-emitter saturation voltage	V_{CEsat}	I_C= -500 mA, I_B= -50 mA		-0.6	V
Base-emitter saturation voltage	V_{BEsat}	I_C= -500 mA, I_B= -50 mA		-1.2	V
Base-emitter voltage	V_{EB}	I_E= -100mA		-1.4	V
Transition frequency	f_T	V_{CE}= -6 V, I_C= -20 mA f =30MHz	150		MHz

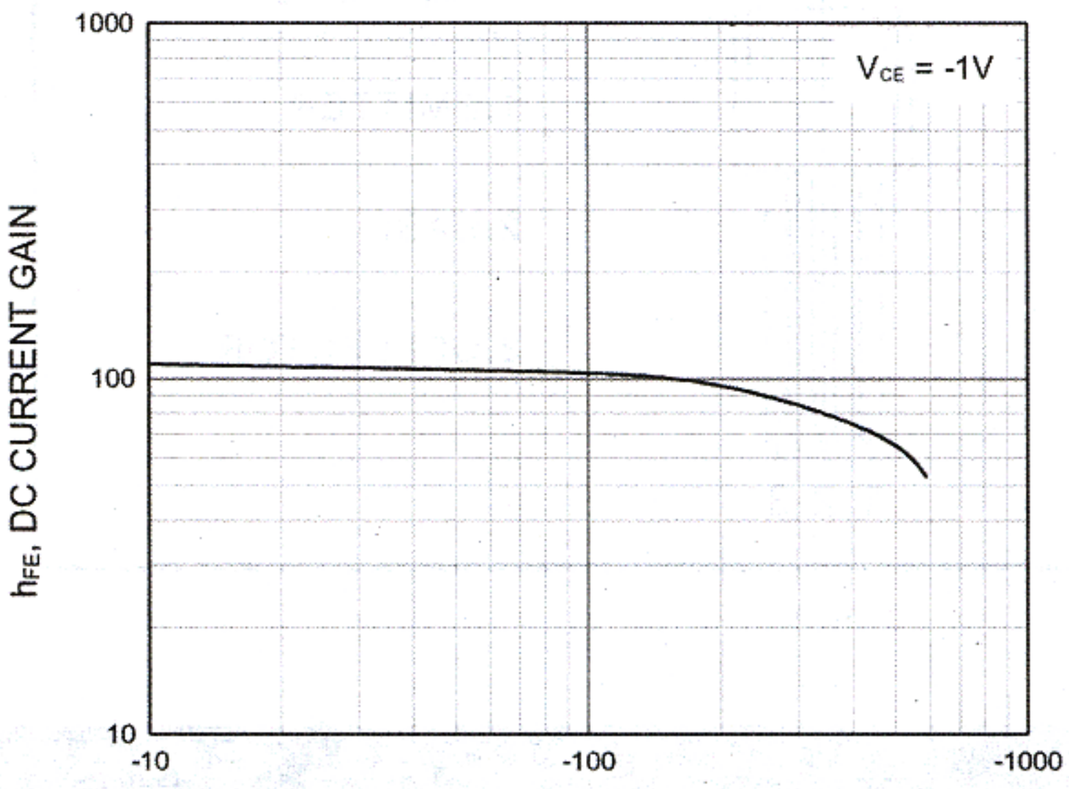
CLASSIFICATION OF $H_{FE(1)}$

Rank	D	E	F	G	H	I
Range	64-91	78-112	96-135	112-166	144-202	190-300

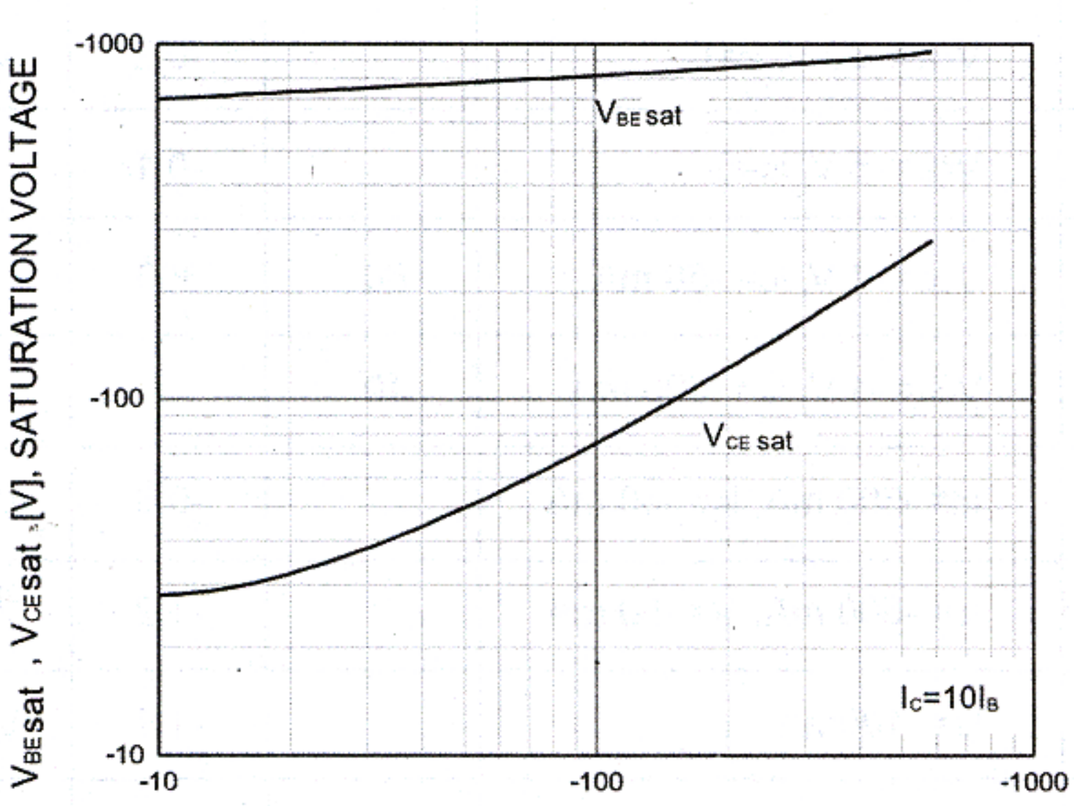
Typical Characteristics



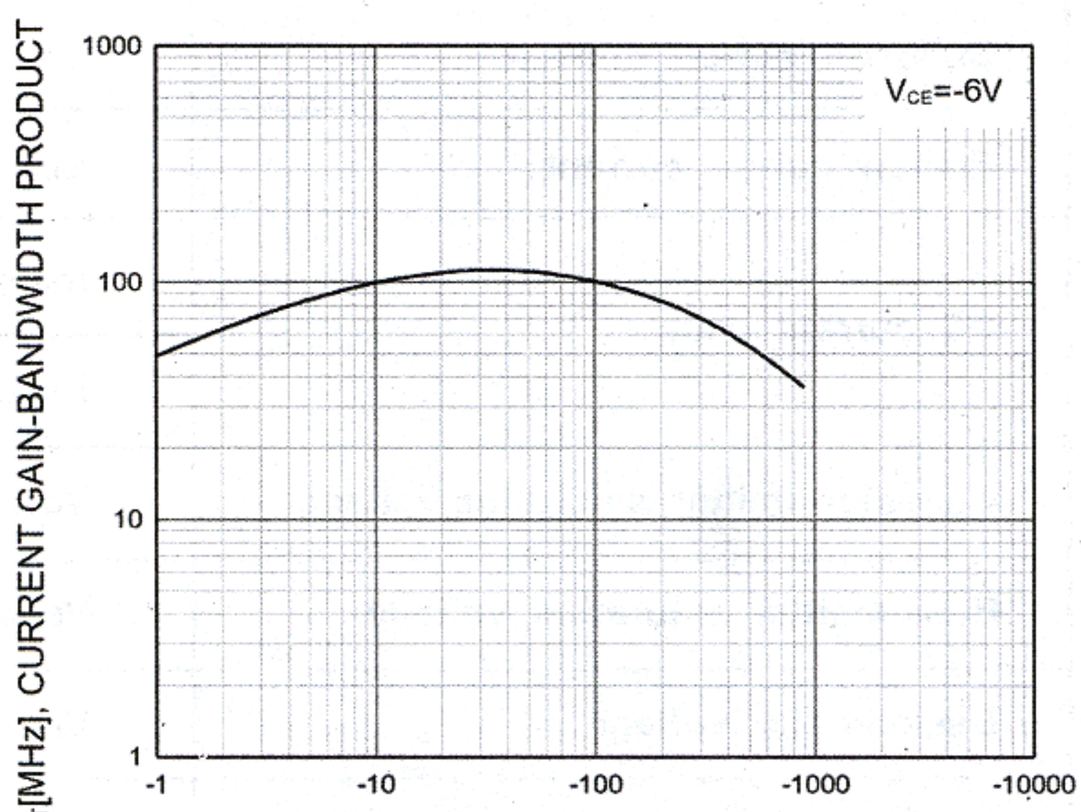
Static Characteristic



DC current Gain



Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage



Current Gain Bandwidth Product