Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

H9014

PRE-AMPLIFIER，LOW LEVEL & LOW NOISE

ABSOLUTE MAXIMUM RATINGS（T_a=25℃）

T_{stg}——Storage Temperature…… -55~150℃

T_j——Junction Temperature……150℃

P_C——Collector Dissipation……450mW

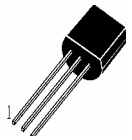
V_{CBO}——Collector-Base Voltage……50V

V_{CEO}——Collector-Emitter Voltage……45V

V_{EBO}——Emitter-Base Voltage……5V

I_C——Collector Current……100mA

TO-92



1－Emitter，E
2－Base，B
3－Collector，C

ELECTRICAL CHARACTERISTICS（T_a=25℃）

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
I_{CBO}	Collector Cut-off Current			0.05	μA	V_{CB}=30V, I_E=0
I_{EBO}	Emitter Cut-off Current			0.05	μA	V_{EB}=5V, I_C=0
$H_{FE(1)}$	DC Current Gain	60		800		V_{CE}=5V, I_C=1mA
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage			0.3	V	I_C=100mA, I_B=5mA
$V_{BE(sat)}$	Base-Emitter Saturation Voltage			1.0	V	I_C=100mA, I_B=5mA
BV_{CBO}	Collector-Base Breakdown Voltage	50			V	I_C=100μA, I_E=0
BV_{CEO}	Collector-Emitter Breakdown Voltage	45			V	I_C=1mA, I_B=0
BV_{EBO}	Emitter-Base Breakdown Voltage	5			V	I_E=100μA，I_C=0
Cob	Output Capacitance		2.2	3.5	pF	V_{CB}=10V, I_E=0，f=1MHz
f_T	Current Gain-Bandwidth Product	150	270		MHz	V_{CE}=5V, I_C=10mA

h_{FE} Classification

A	B	C	D
60—150	100—300	200—600	400—800

Typical Characteristics

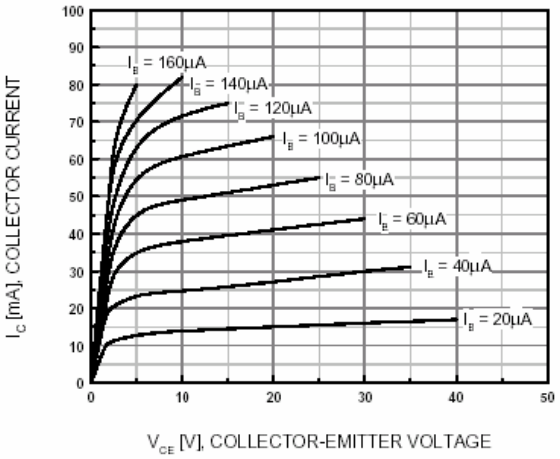


Figure 1. Static Characteristic

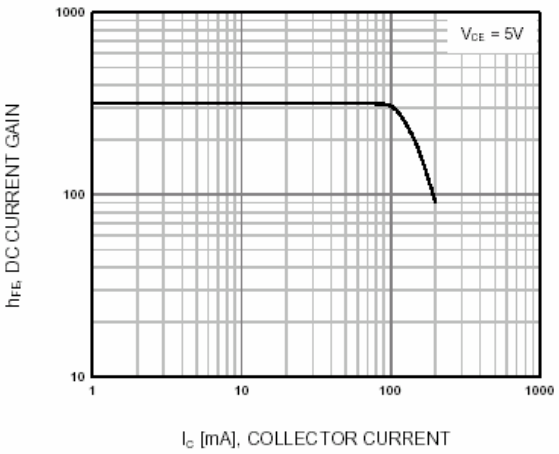


Figure 2. DC current Gain

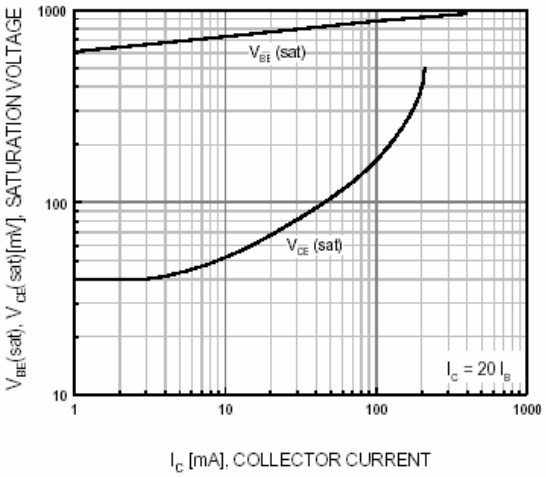


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

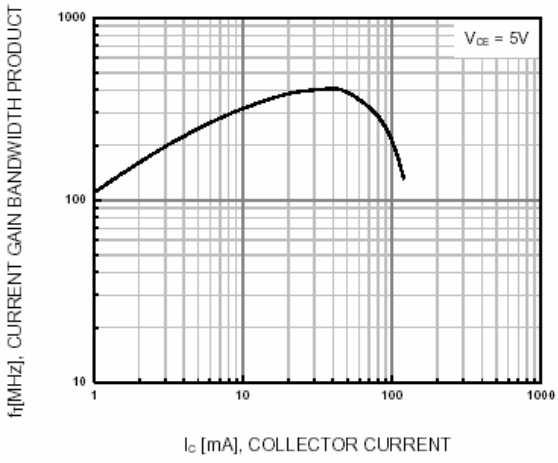


Figure 4. Current Gain Bandwidth Product