



Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

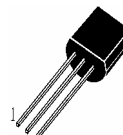
H1674

■ TV PIF AMPLIFIER, FM TUNER RF AMPLIFIER,
MIXER, OSCILLATOR

■ **ABSOLUTE MAXIMUM RATINGS** ($T_a=25^{\circ}\text{C}$)

T_{stg} ——Storage Temperature..... $-55\sim 150^{\circ}\text{C}$
 T_j ——Junction Temperature..... 150°C
 P_C ——Collector Dissipation..... 250mW
 V_{CBO} ——Collector-Base Voltage..... 30V
 V_{CEO} ——Collector-Emitter Voltage..... 20V
 V_{EBO} ——Emitter-Base Voltage..... 4V
 I_C ——Collector Current..... 20mA

TO-92



1—Emitter, E
2—Base, B
3—Collector, C

■ **ELECTRICAL CHARACTERISTICS** ($T_a=25^{\circ}\text{C}$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
I_{CBO}	Collector Cut-off Current			0.1	μA	$V_{\text{CB}}=30\text{V}, I_{\text{E}}=0$
I_{EBO}	Emitter Cut-off Current			0.1	μA	$V_{\text{EB}}=4\text{V}, I_{\text{C}}=0$
h_{FE}	DC Current Gain	40		240		$V_{\text{CE}}=6\text{V}, I_{\text{C}}=1\text{mA}$
$V_{\text{CE(sat)}}$	Collector- Emitter Saturation Voltage		0.1	0.3	V	$I_{\text{C}}=10\text{mA}, I_{\text{B}}=1\text{mA}$
$V_{\text{BE(on)}}$	Base-Emitter On Voltage		0.72		V	$V_{\text{CE}}=6\text{V}, I_{\text{C}}=1\text{mA}$
BV_{CBO}	Collector-Base Breakdown Voltage	30			V	$I_{\text{C}}=10\mu\text{A}, I_{\text{E}}=0$
BV_{CEO}	Collector-Emitter Breakdown Voltage	20			V	$I_{\text{C}}=5\text{mA}, I_{\text{B}}=0$
BV_{EBO}	Emitter-Base Breakdown Voltage	4			V	$I_{\text{E}}=10\mu\text{A}, I_{\text{C}}=0$
f_{T}	Current Gain-Bandwidth Product	400	600		MHz	$V_{\text{CE}}=6\text{V}, I_{\text{C}}=1\text{mA}$
C_{ob}	Output Capacitance		1.2		pF	$V_{\text{CB}}=6\text{V}, I_{\text{E}}=0, f=1\text{MHz}$

■ **h_{FE} Classification**

R	O	Y
40—80	70—140	120—240

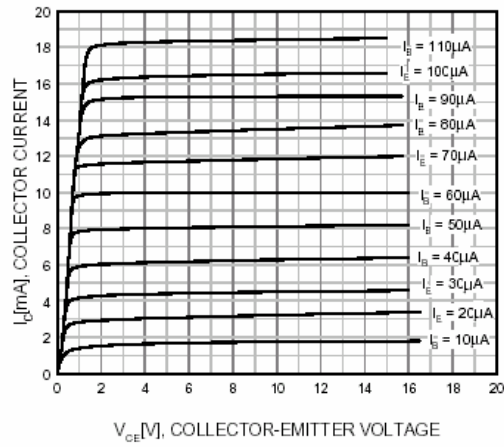
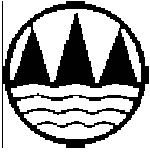


Figure 1. Static Characteristic

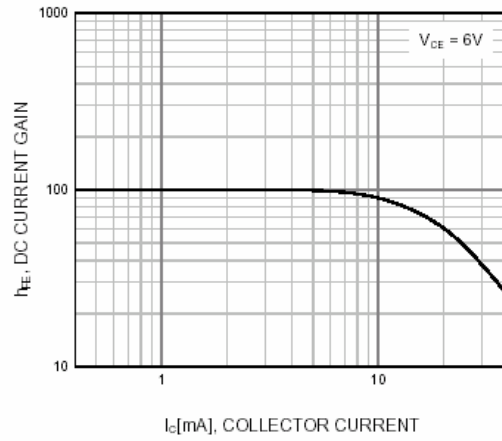


Figure 2. DC current Gain

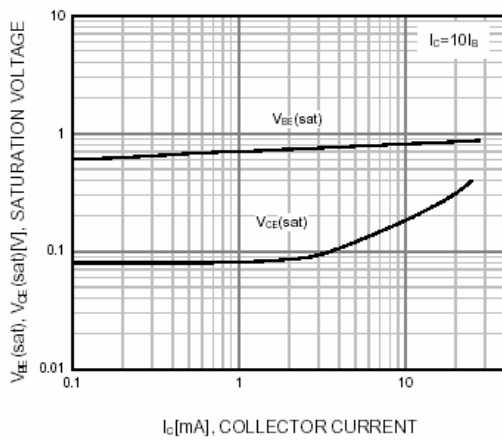


Figure 3. Base-Emitter Saturation Voltage
Collector-Emmitter Saturation Voltage

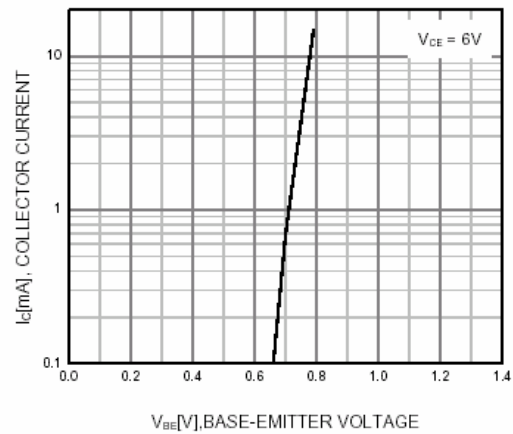


Figure 4. Base-Emitter On Voltage

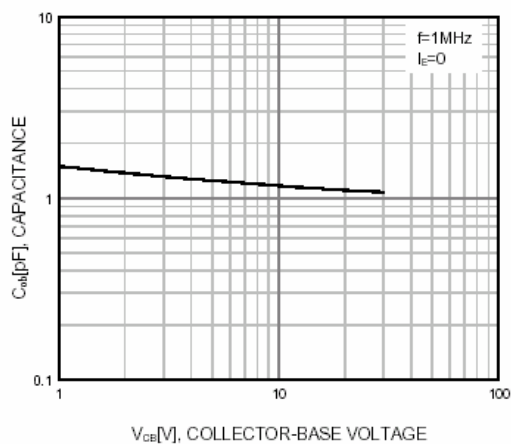


Figure 5. Collector Output Capacitance

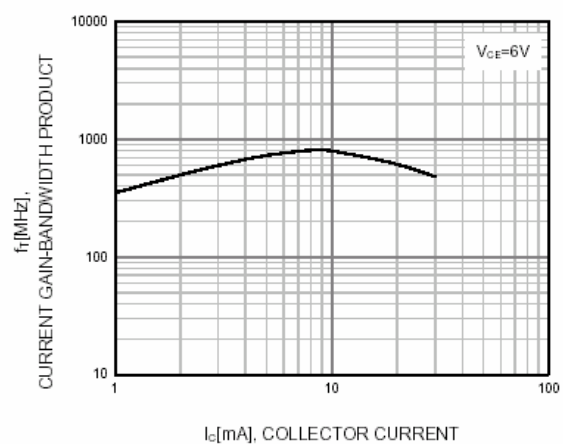


Figure 6. Current Gain Bandwidth Product