



Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

H5609

APPLICATIONS

AUDIO AMPLIFICATION

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..... 750mW

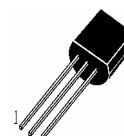
V_{CBO} —Collector-Base Voltage..... -25V

V_{CEO} —Collector-Emitter Voltage..... -20V

V_{EBO} —Emitter-Base Voltage..... -5V

I_C —Collector Current..... -1A

TO-92



1—Emitter, E

2—Collector, C

3—Base, B

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

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV_{CBO}	Collector-Base Breakdown Voltage	25			V	$I_C=10\mu\text{A}$, $I_E=0$
BV_{CEO}	Collector-Emitter Breakdown Voltage	20			V	$I_C=1\text{mA}$, $I_B=0$
BV_{EBO}	Emitter-Base Breakdown Voltage	5			V	$I_E=10\mu\text{A}$, $I_C=0$
I_{CBO}	Collector Cut-off Current			1	μA	$V_{\text{CB}}=20\text{V}$, $I_E=0$
h_{FE}	DC Current Gain	60		240		$V_{\text{CE}}=2\text{V}$, $I_C=500\text{mA}$
$V_{\text{CE(sat)}}$	Collector- Emitter Saturation Voltage		0.2	0.5	V	$I_C=800\text{mA}$, $I_B=80\text{mA}$
$V_{\text{BE(ON)}}$	Base-Emitter On Voltage		0.7	1	V	$V_{\text{CE}}=2\text{V}$, $I_C=500\text{mA}$
f_T	Current Gain-Bandwidth Product		180		MHz	$V_{\text{CE}}=2\text{V}$, $I_C=500\text{mA}$
C_{ob}	Output Capacitance		22		pF	$V_{\text{CB}}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$

h_{FE} Classification

A

B

C

60—120

85—170

120—240