



Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

H4204

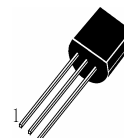
APPLICATIONS

AF Amplifier, Various Drivers.

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

T_{stg}	—Storage Temperature	-55~150 $^{\circ}\text{C}$
T_j	—Junction Temperature	150 $^{\circ}\text{C}$
P_C	—Collector Dissipation	600mW
V_{CBO}	—Collector-Base Voltage	30V
V_{CEO}	—Collector-Emitter Voltage	25V
V_{EBO}	—Emitter-Base Voltage	15V
I_C	—Collector Current	700mA

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
BVCBO	Collector-Base Breakdown Voltage	30			V	$I_C=10\mu\text{A}, I_E=0$
BVCEO	Collector-Emitter Breakdown Voltage	25			V	$I_C=1\text{mA}, I_B=0$
BVEBO	Emitter-Base Breakdown Voltage	15			V	$I_E=10\mu\text{A}, I_C=0$
$H_{\text{FE}}(1)$	DC Current Gain	800	1500	3200		$V_{\text{CE}}=5\text{V}, I_C=50\text{mA}$
$H_{\text{FE}}(2)$	DC Current Gain	600				$V_{\text{CE}}=5\text{V}, I_C=500\text{mA}$
$V_{\text{CE}}(\text{sat})$	Collector- Emitter Saturation Voltage		0.15	0.5	V	$I_C=500\text{mA}, I_B=10\text{mA}$
$V_{\text{BE}}(\text{sat})$	Base-Emitter Saturation Voltage		0.9	1.2	V	$I_C=500\text{mA}, I_B=10\text{mA}$
I_{CBO}	Collector Cut-off Current			100	nA	$V_{\text{CB}}=20\text{V}, I_E=0$
I_{EBO}	Emitter Cut-off Current			100	nA	$V_{\text{EB}}=10\text{V}, I_C=0$
f _T	Current Gain-Bandwidth Product		270		MHz	$V_{\text{CE}}=10\text{V}, I_C=50\text{mA},$
C _{ob}	Output Capacitance		9		pF	$V_{\text{CB}}=10\text{V}, f=1\text{MHz}$
t _{ON}	Turn-On Time		0.1		μS	See specified test circuit
t _{STG}	Storage Time		0.6		μS	See specified test circuit
t _F	Fall Time		0.06		μS	See specified test circuit

