Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

H13002

HIGH VOLTAGE SWITCH MODE APPLICICATIONS

High Speed Switching

Suitable for Switching Regulator and Montor Control



1—Base，B

2—Collector，C

3— Emitter，E

ABSOLUTE MAXIMUM RATINGS（T_a=25℃）

T_{stg}——Storage Temperature…… -65~150℃

T_j——Junction Temperature……150℃

P_C——Collector Dissipation……30W

V_{CBO}——Collector-Base Voltage……600V

V_{CEO}——Collector-Emitter Voltage……400V

V_{EBO}——Emitter-Base Voltage……9V

I_C——Collector Current……1.5A

ELECTRICAL CHARACTERISTICS（T_a=25℃）

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV_{CBO}	Collector-Base Breakdown Voltage	600			V	I_C=1mA, I_E=0
BV_{CEO}	Collector-Emitter Breakdown Voltage	400			V	I_C=10mA, I_B=0
BV_{EBO}	Emitter-Base Breakdown Voltage	9			V	I_E=1mA， I_C=0
H_{FE}	DC Current Gain	10		40		V_{CE}=10V, I_C=0.1A
$V_{CE(sat)1}$	Collector- Emitter Saturation Voltage			0.8	V	I_C=1A, I_B=500mA
$V_{CE(sat)2}$	Collector- Emitter Saturation Voltage			0.8	V	I_C=0.5A, I_B=100mA
$V_{BE(sat)}$	Base-Emitter Saturation Voltage			1.2	V	I_C=0.5A, I_B=100mA
I_{CBO}	Collector Cut-off Current			10	μA	V_{CB}=500V, I_E=0
I_{EBO}	Emitter-Base Cut-off Current			10	μA	V_{EB}=9V, I_C=0
f_T	Current Gain-Bandwidth Product	8			MHz	V_{CE}=10V,I_C=0.1A,f=1MHz
t_{ON}	Turn On Time			1.1	μs	V_{CC}=125V, I_C=1A,
t_{STG}	Storage Time			4.0	μs	I_{B1}=0.2A,I_{B2}=-0.2A
t_F	Fall Time			0.7	μs	R_L=125Ω

h_{FE} Classification

H1	H2	H3	H4	H5
10-16	14-21	19-26	24-31	29-40