Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

HBU406

APPLICATIONS

High Voltage Swltching.

ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

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

T_j——Junction Temperature·····150℃

P_C——Collector Dissipation(Tc=25℃)·····60W

V_{CBO}——Collector-Base Voltage·····400V

V_{CEO}——Collector-Emitter Voltage·····200V

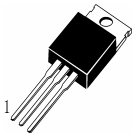
V_{EBO}——Emitter-Base Voltage·····6V

I_C——Collector Current(DC)·····7A

I_{CP}——Collector Current(Pulse)·····10A

Ib——Base Current·····4A

TO-220



1—Base, B
2—Collector, C
3—Emitter, E

ELECTRICAL CHARACTERISTICS (T_a=25℃)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
I_{CES} (1)	Collector Cut-off Current			5	mA	V_{CE}=400V, V_{EB}=0
I_{CES} (2)				100	μA	V_{CE}=250V, V_{EB}=0
I_{CES} (3)				1	mA	V_{CE}=250V, V_{EB}=0 (Tc=125℃)
I_{EBO}	Emitter Cut-off Current			1	mA	V_{EB}=6V, I_C=0
H_{FE}	DC Current Gain	10				V_{CE}=1V, I_C=5A
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage			1	V	I_C=5A, I_B=0.5A
$V_{BE(on)}$	Base-Emitter On Voltage			1.2	V	V_{CE}=5V, I_C=0.5A
f_T	Current Gain-Bandwidth Product	10			MHz	V_{CE}=10V,I_C=0.5A
t_{OFF}	Turn OFF Time			0.75	μS	I_C=5A, I_B=0.5A

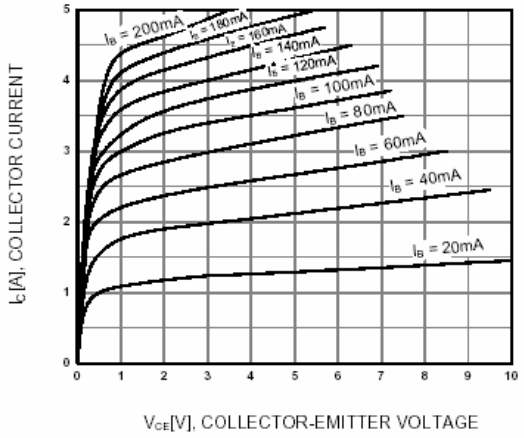


Figure 1. Static Characteristic

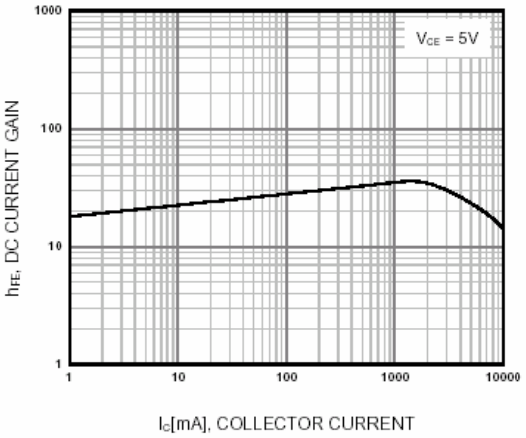


Figure 2. DC current Gain

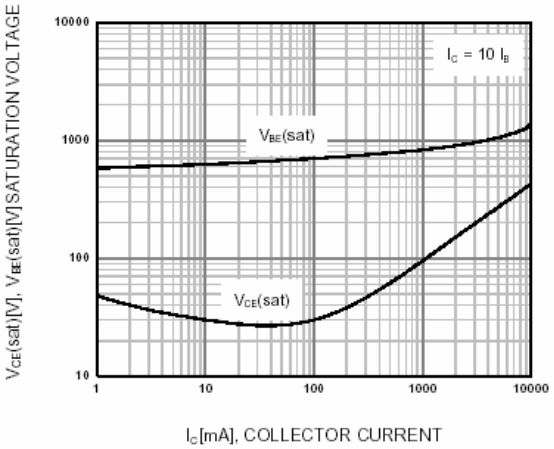


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

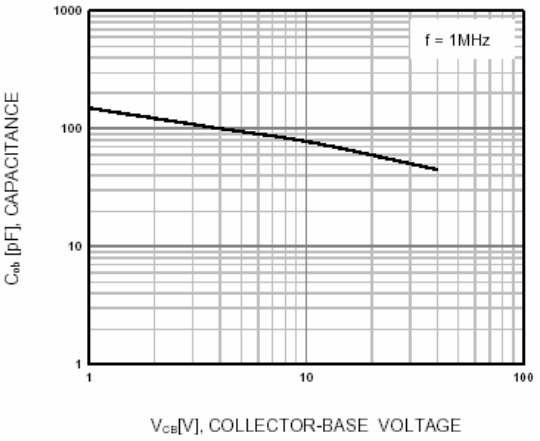


Figure 4. Collector Output Capacitance

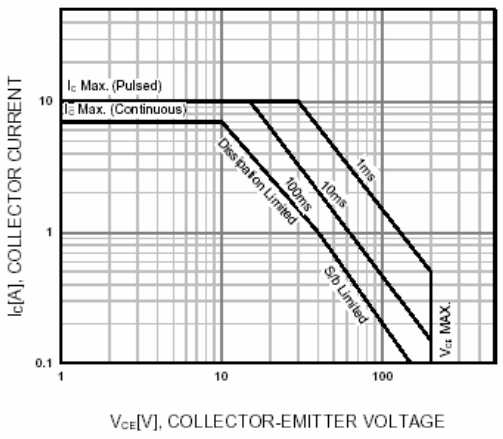


Figure 5. Safe Operating Area

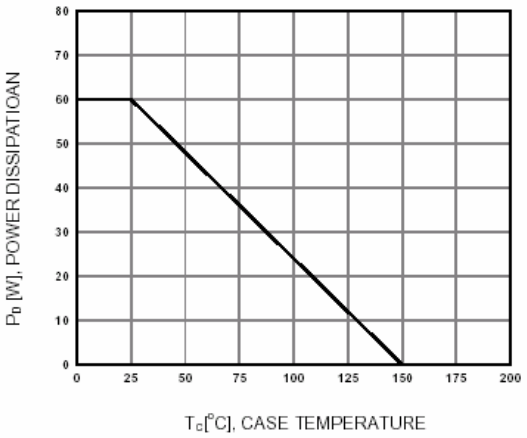


Figure 6. Power Derating