Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

HC5027H

APPLICATIONS

High Voltage And High Reliability .

ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

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

T_j——Junction Temperature……150℃

P_C——Collector Dissipation (Tc=25℃)……65W

V_{CBO}——Collector-Base Voltage……1100V

V_{CEO}——Collector-Emitter Voltage……800V

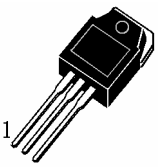
V_{EBO}——Emitter-Base Voltage……7V

I_C——Collector Current (DC) ……3A

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

Ib——Base Current……1.5A

TO-3P



1—Base, B
2—Collector, C
3—Emitter, E

ELECTRICAL CHARACTERISTICS (T_a=25℃)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV_{CBO}	Collector-Base Breakdown Voltage	1100			V	I_C=1mA, I_E=0
BV_{CEO}	Collector-Emitter Breakdown Voltage	800			V	I_C=5mA, I_B=0
BV_{EBO}	Emitter-Base Breakdown Voltage	7			V	I_E=1mA, I_C=0
I_{CBO}	Collector Cut-off Current			10	μA	V_{CB}=800V, I_E=0
I_{EBO}	Emitter Cut-off Current			10	μA	V_{EB}=5V, I_C=0
H_{FE} (1)	DC Current Gain	10		40		V_{CE}=5V, I_C=0.2A
H_{FE} (2)	DC Current Gain	8				V_{CE}=5V, I_C=1A
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage			2	V	I_C=1.5A, I_B=0.3A
$V_{BE(sat)}$	Base-Emitter Saturation Voltage			1.5	V	I_C=1.5A, I_B=0.3A
fT	Current Gain-Bandwidth Product		15		MHz	V_{CE}=10V,I_C=0.2A
Cob	Output Capacitance		60		pF	V_{CB}=10V, I_E=0, f=1MHz

h_{FE} Classification

N	R	O
10—20	15—30	20—40

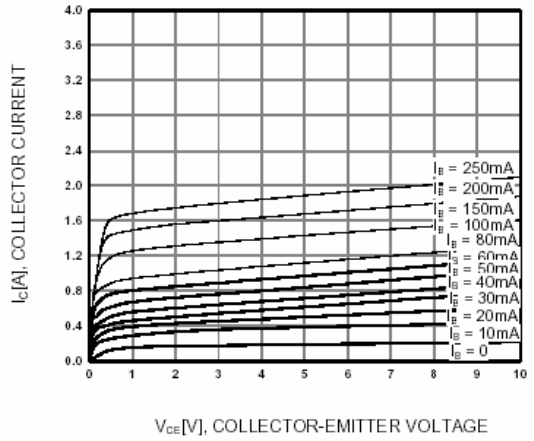


Figure 1. Static Characteristic

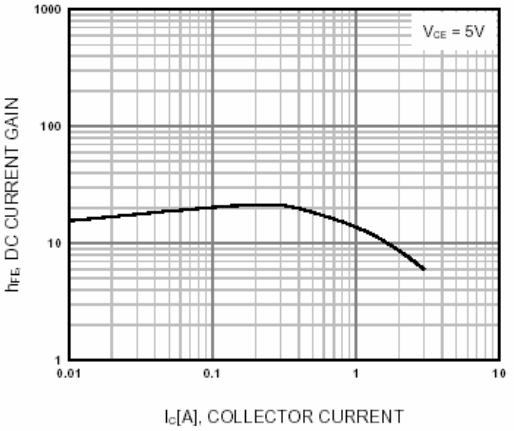


Figure 2. DC current Gain

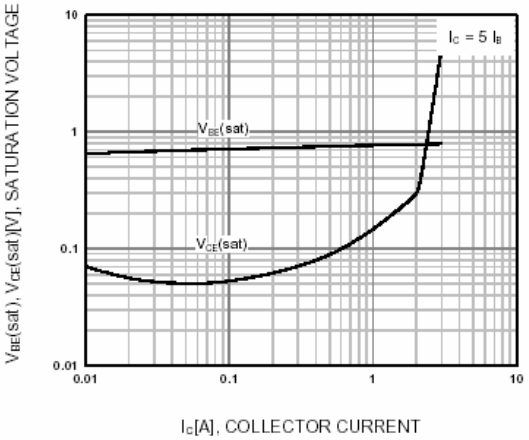


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

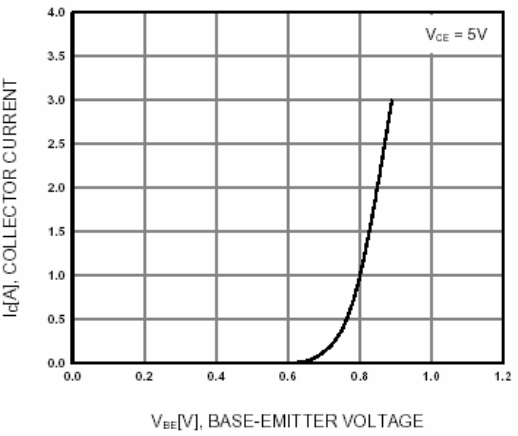


Figure 4. Base-Emitter On Voltage

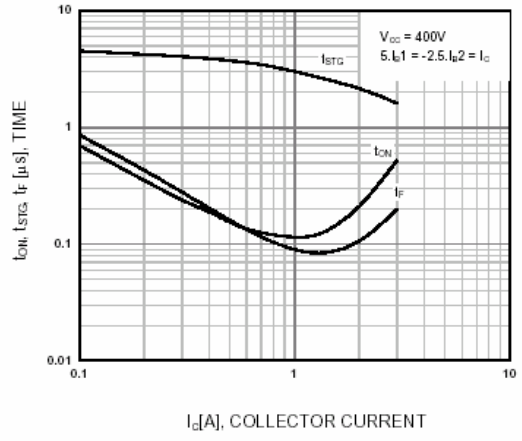


Figure 5. Switching Time

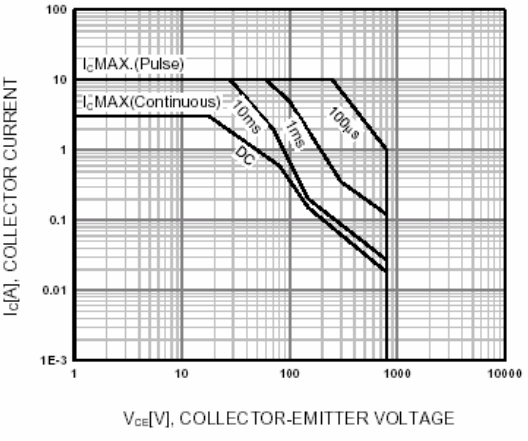


Figure 6. Safe Operating Area

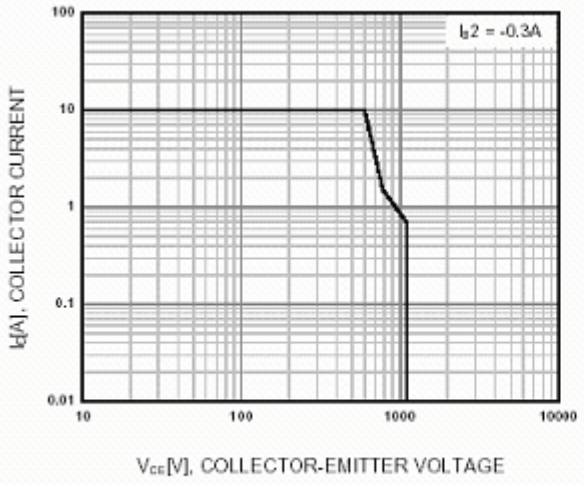


Figure 7. Reverse Bias Operating Area

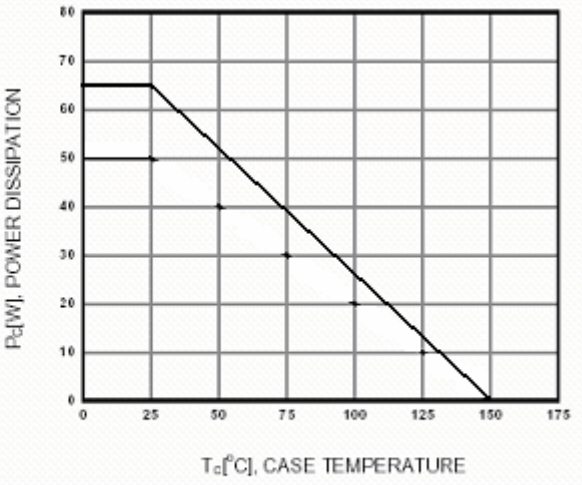


Figure 8. Power Derating