

Shantou Huashan Electronic Devices Co., Ltd.

NPN SILICON TRANSISTOR

HBD681

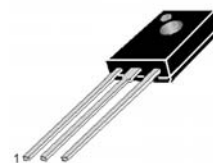
APPLICATIONS

Medium Power Linear switching.

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

T_{stg}	Storage Temperature	-65~150 $^{\circ}\text{C}$
T_j	Junction Temperature	150 $^{\circ}\text{C}$
P_C	Collector Dissipation ($T_c=25^{\circ}\text{C}$)	40W
V_{CBO}	Collector-Base Voltage	100V
V_{CEO}	Collector-Emitter Voltage	100V
V_{EBO}	Emitter-Base Voltage	5V
I_C	Collector Current (Pulse)	6A
I_C	Collector Current (DC)	4A
I_B	Base Current	100mA

TO-126F



1 — Emitter, E
2 — Collector, C
3 — Base, B

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

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
I_{CBO}	Collector Cut-off Current			200	μA	$V_{\text{CB}}=100\text{V}$, $I_E=0$
I_{EBO}	Emitter Cut-off Current			2	mA	$V_{\text{EB}}=5\text{V}$, $I_C=0$
I_{CES}	Collector Cut-off Current			500	μA	$V_{\text{CE}}=100\text{V}$, $V_{\text{EB}}=0$
* H_{FE}	DC Current Gain	750				$V_{\text{CE}}=3\text{V}$, $I_C=1.5\text{mA}$
* $V_{\text{CE(sat)}}$	Collector- Emitter Saturation Voltage			2.5	V	$I_C=1.5\text{A}$, $I_B=30\text{mA}$
$V_{\text{BE(on)}}$	Base-Emitter On Voltage			2.5	V	$V_{\text{CE}}=3\text{V}$, $I_C=1.5\text{A}$
$V_{\text{CEO(SUS)}}$	Collector-Emitter Sustaining Voltage	100				$I_C=50\text{mA}$, $I_B=0$

* Pulse Test: $PW=300\mu\text{S}$, Duty Cycle=1.5% Pulsed

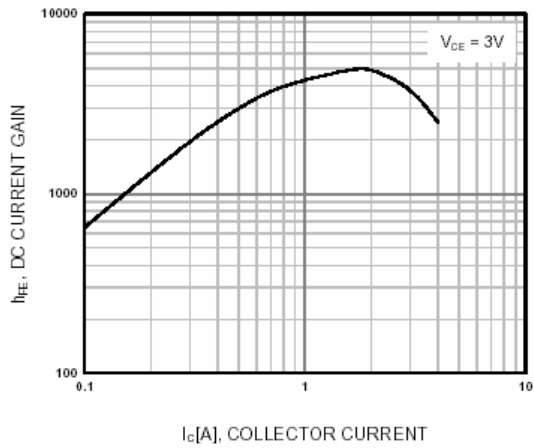


Figure 1. DC current Gain

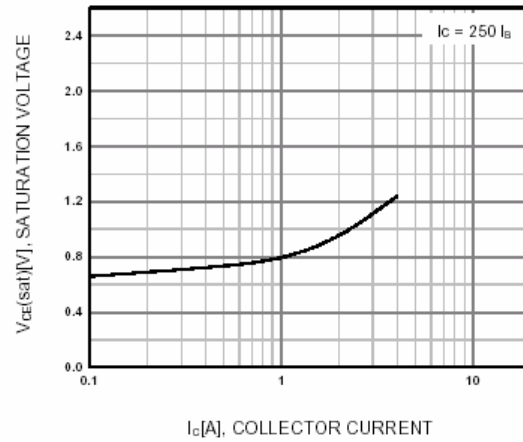


Figure 2. Collector-Emitter Saturation Voltage

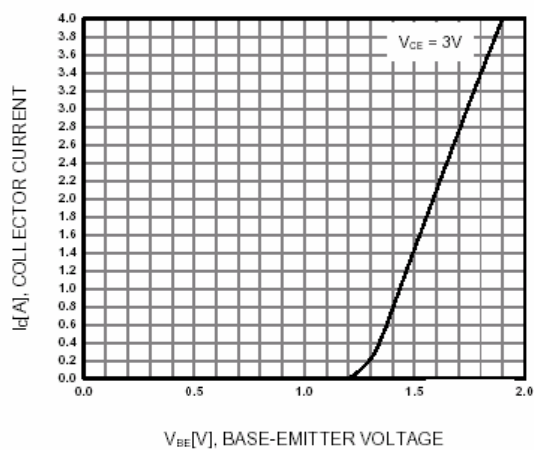


Figure 3. Base-Emitter On Voltage

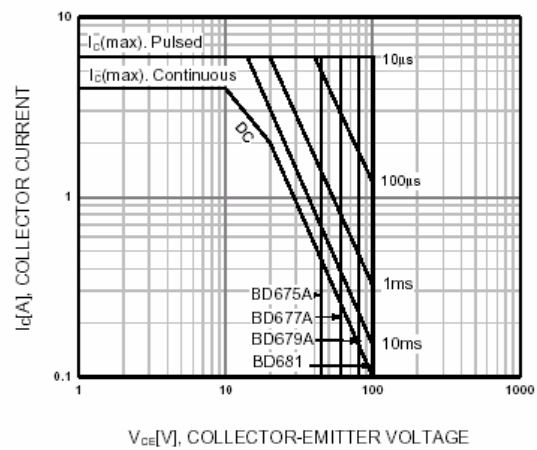


Figure 4. Safe Operating Area

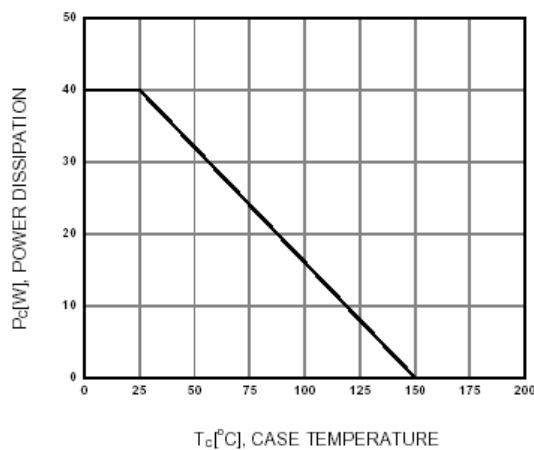


Figure 5. Power Derating