



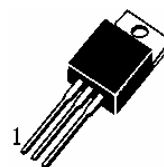
HE13007

HIGH VOLTAGE SWITCH MODE APPLICATION

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

T_{stg}	Storage Temperature.....	-65~150
T_j	Junction Temperature.....	150
P_C	Collector Dissipation ($T_c=25$)	80W
V_{CBO}	Collector-Base Voltage.....	700V
V_{CEO}	Collector-Emitter Voltage.....	400V
V_{EBO}	Emitter-Base Voltage	9V
I_C	Collector Current (DC)	8A
I_C	Collector Current (Pulse)	16A
I_B	Base Current.....	4A

TO-220AB



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

电参数 ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV_{CEO}	Collector-Emitter Breakdown Voltage	400			V	$I_C=10mA$, $I_B=0$
I_{EBO}	Emitter Cut-off Current			1	mA	$V_{EB}=9V$, $I_C=0$
$H_{FE}(1)$	DC Current Gain	10		40		$V_{CE}=5V$, $I_C=2A$
$H_{FE}(2)$		5		30		$V_{CE}=5V$, $I_C=5A$
$V_{CE(sat1)}$	Collector- Emitter Saturation Voltage			1	V	$I_C=2A$, $I_B=0.4A$
$V_{CE(sat2)}$				2	V	$I_C=5A$, $I_B=1A$
$V_{CE(sat3)}$				3	V	$I_C=8A$, $I_B=2A$
$V_{BE(sat1)}$	Base-Emitter Saturation Voltage			1.2	V	$I_C=2A$, $I_B=0.4A$
$V_{BE(sat2)}$				1.6	V	$I_C=5A$, $I_B=1A$
C_{ob}	Output Capacitance		110		pF	$V_{CB}=10V$, $f=0.1MHz$
f_r	Current Gain-Bandwidth Product	4			MHz	$V_{CE}=10V$, $I_C=0.5A$
t_{ON}	Turn-On Time			1.6	μS	$V_{CC}=125V$, $I_C=5A$ $I_{B1}=-I_{B2}=1A$
t_{STG}	Storage Time			3	μS	
t_F	Fall Time			0.7	μS	

h_{FE} Classification

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

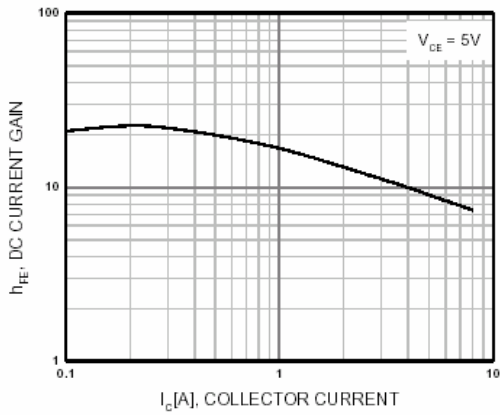


Figure 1. DC current Gain

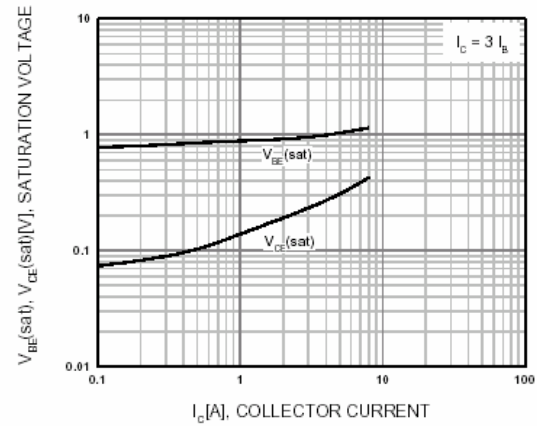


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

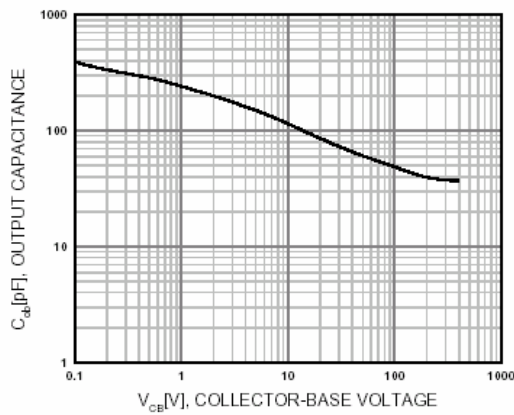


Figure 3. Collector Output Capacitance

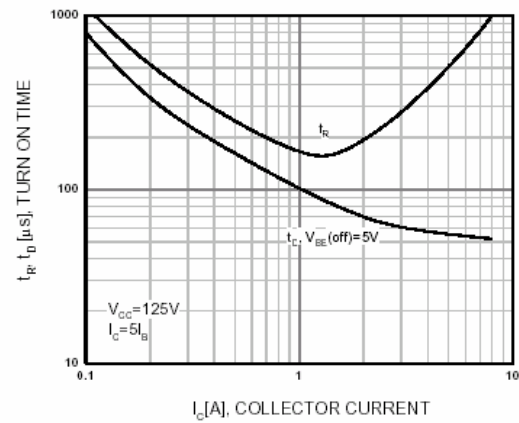


Figure 4. Turn On Time

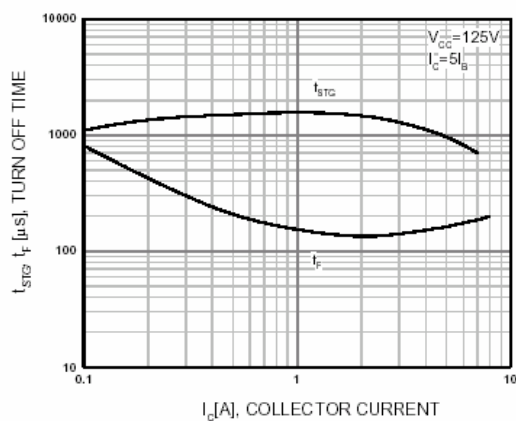


Figure 5. Turn Off Time

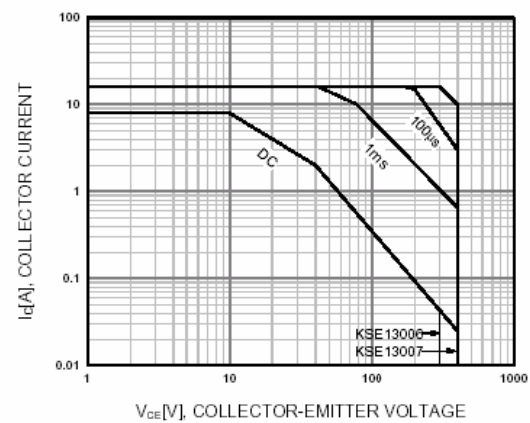


Figure 6. Safe Operating Area



Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

HE13007

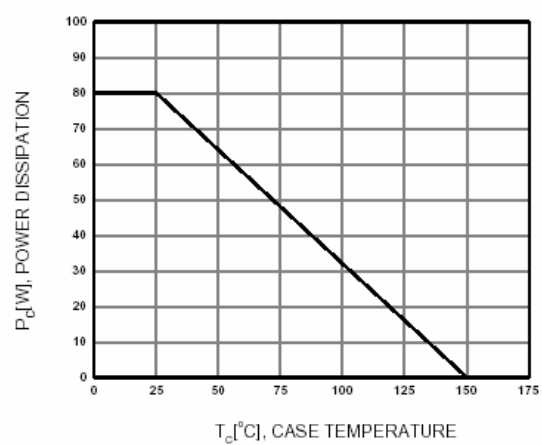


Figure 7. Power Derating