

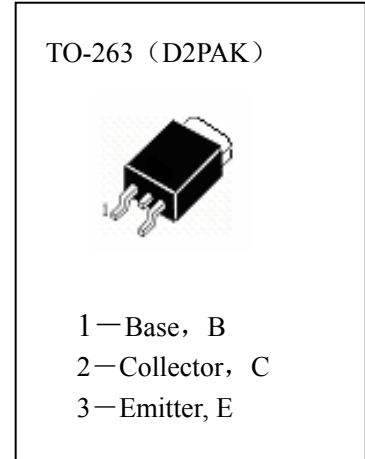


# KSH13007W

## ■ HIGH VOLTAGE SWITCH MODE APPLICATION

## ■ ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)

- T<sub>stg</sub>—Storage Temperature..... -55~150°C
- T<sub>j</sub>—Junction Temperature..... 150°C
- P<sub>C</sub>—Collector Dissipation (T<sub>c</sub>=25°C) ..... 80W
- V<sub>CBO</sub>—Collector-Base Voltage..... 700V
- V<sub>CEO</sub>—Collector-Emitter Voltage..... 400V
- V<sub>EBO</sub>—Emitter-Base Voltage..... 9V
- I<sub>C</sub>—Collector Current (DC) ..... 8A
- I<sub>C</sub>—Collector Current (Pulse) ..... 16A
- I<sub>B</sub>—Base Current.....4A



## ■ 电参数 (T<sub>a</sub>=25°C)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV <sub>CEO</sub>	Collector-Emitter Sustaining Voltage	400			V	I <sub>C</sub> =10mA, I <sub>B</sub> =0
I <sub>EBO</sub>	Emitter-Base Cutoff Current			1	mA	V <sub>EB</sub> =9V, I <sub>C</sub> =0
H <sub>FE</sub> (1)	DC Current Gain	10		40		V <sub>CE</sub> =5V, I <sub>C</sub> =2A
H <sub>FE</sub> (2)		5		30		V <sub>CE</sub> =5V, I <sub>C</sub> =5A
V <sub>CE(sat1)</sub>	Collector- Emitter Saturation Voltage			1	V	I <sub>C</sub> =2A, I <sub>B</sub> =400mA
V <sub>CE(sat2)</sub>				2	V	I <sub>C</sub> =5A, I <sub>B</sub> =1A
V <sub>CE(sat3)</sub>				3	V	I <sub>C</sub> =8A, I <sub>B</sub> =2A
V <sub>BE(sat1)</sub>	Base- Emitter Saturation Voltage			1.2	V	I <sub>C</sub> =2A, I <sub>B</sub> =0.4A
V <sub>BE(sat2)</sub>				1.6	V	I <sub>C</sub> =5A, I <sub>B</sub> =1A
C <sub>ob</sub>	Output Capacitance		110		pF	V <sub>CB</sub> =10V, f=0.1MHz z
f <sub>T</sub>	Current Gain-Bandwidth Product	4				V <sub>CE</sub> =10V, I <sub>C</sub> =500mA
t <sub>ON</sub>	Turn On time			1.6	uS	V <sub>cc</sub> =125V, I <sub>c</sub> =5A I <sub>B1</sub> =I <sub>B2</sub> =1A
t <sub>STG</sub>	Storage Time			3	uS	
t <sub>F</sub>	Fall Time			0.7	uS	

## ■ hFE Classification

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

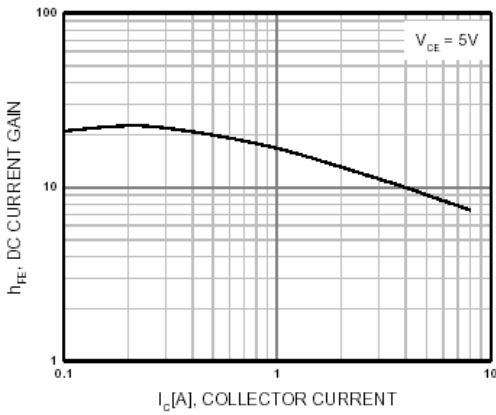


Figure 1. DC current Gain

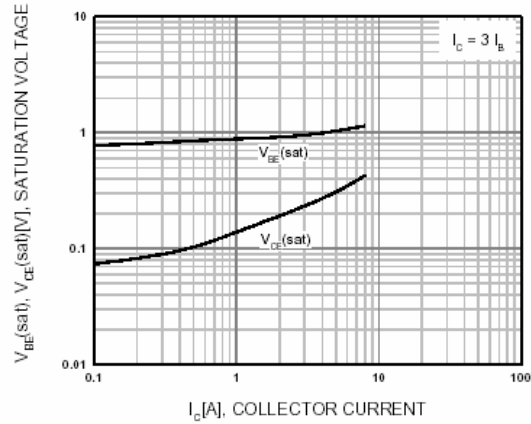


Figure 2. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

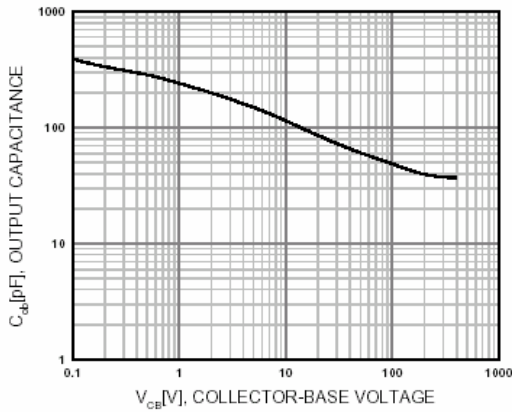


Figure 3. Collector Output Capacitance

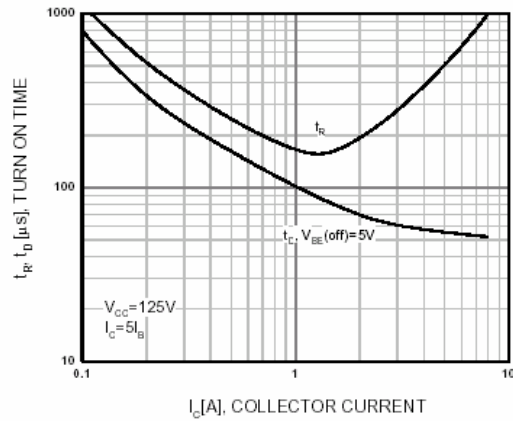


Figure 4. Turn On Time

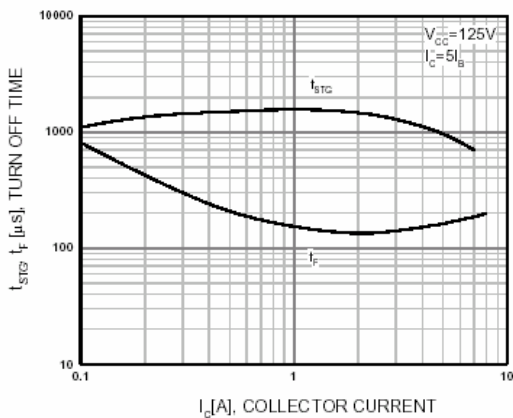


Figure 5. Turn Off Time

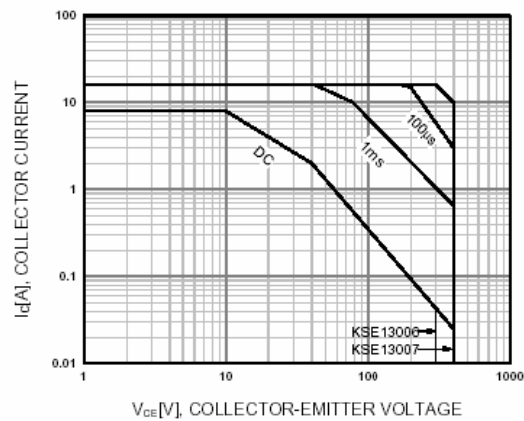


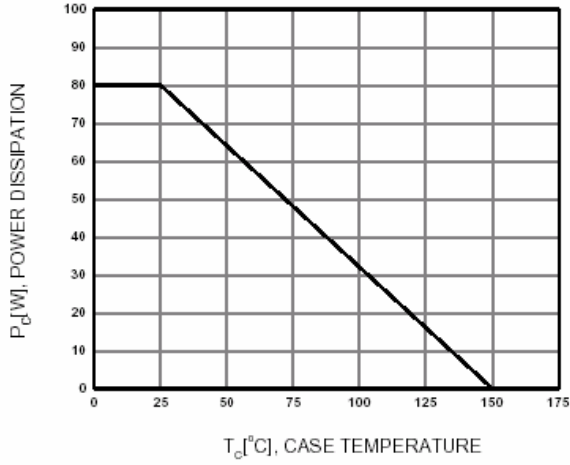
Figure 6. Safe Operating Area



**Shantou Huashan Electronic Devices Co.,Ltd.**

NPN SILICON TRANSISTOR

**KSH13007W**



**Figure 7. Power Derating**