



KSH13007F

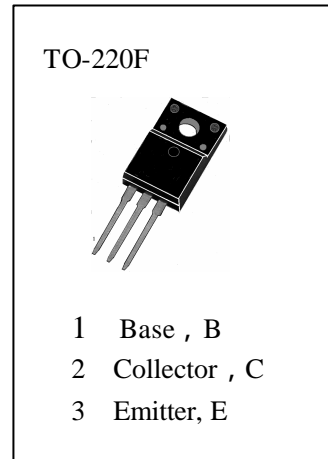
HIGH VOLTAGE SWITCH MODE APPLICATION

High Speed Switching

Suitable for Switching Regulator and Motor Control

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

T_{stg}	—Storage Temperature.....	-65~150
T_j	—Junction Temperature.....	150
P_C	—Collector Dissipation ($T_c=25$)	40W
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_{CP}	—Collector Current (Pulse)	16A
I_B	—Base Current.....	4A



电参数 ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
V_{CEO}	Collector-Emitter Sustaining Voltage	400			V	$I_C=10mA, I_B=0$
I_{EBO}	Emitter-Base Cut-off Current			1	mA	$V_{EB}=9V, I_C=0$
H_{FE}	DC Current Gain	10		40		$V_{CE}=5V, I_C=2A$
		5		30		$V_{CE}=5V, I_C=5A$
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage			1	V	$I_C=2A, I_B=0.4A$
				2	V	$I_C=5A, I_B=1A$
				3	V	$I_C=8A, I_B=2A$
$V_{BE(sat)}$	Base- Emitter Saturation Voltage			1.2	V	$I_C=2A, I_B=0.4A$
				1.6	V	$I_C=5A, I_B=1A$
C_{ob}	Output Capacitance		110		pF	$V_{CB}=10V, f=0.1MHz$
f_T	Current Gain-Bandwidth Product	4			MHz	$V_{CE}=10V, I_C=0.5A$
t_{ON}	Turn On Time			1.6	μs	$V_{CC}=125V, I_C=5A,$ $I_{B1}=-I_{B2}=1A$ $R_L=50$
t_S	Storage Time			3	μs	
t_F	Fall Time			0.7	μs	

H_{FE} Classification : H1(10--16) H2(14--21) H3(19--26) H4(24--31) H5(29--40)

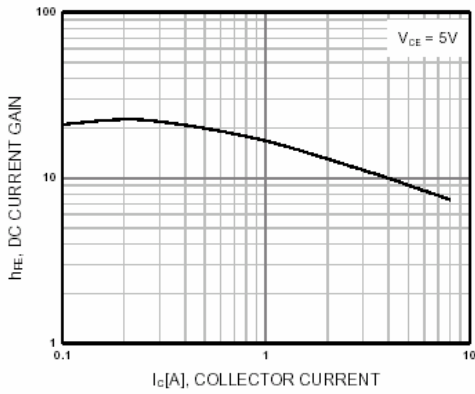


Figure 1. DC current Gain

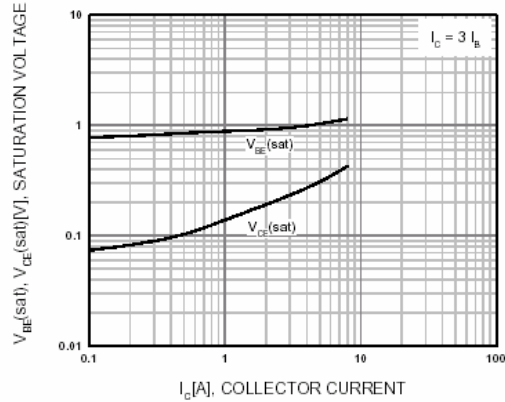


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

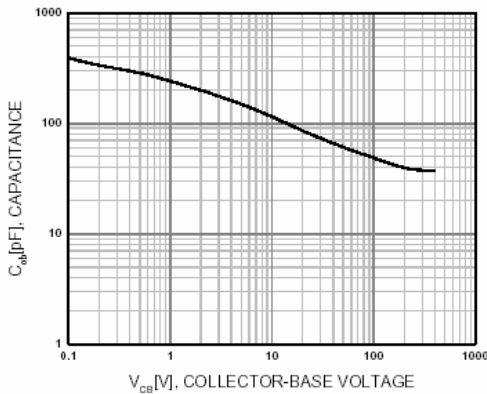


Figure 3. Collector Output Capacitance

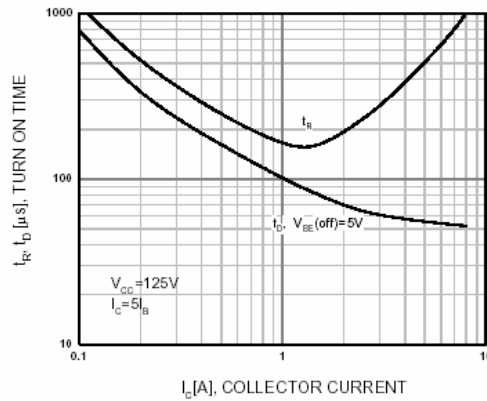


Figure 4. Turn On Time

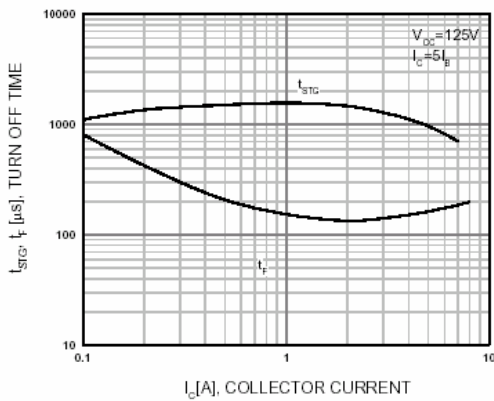


Figure 5. Turn Off Time

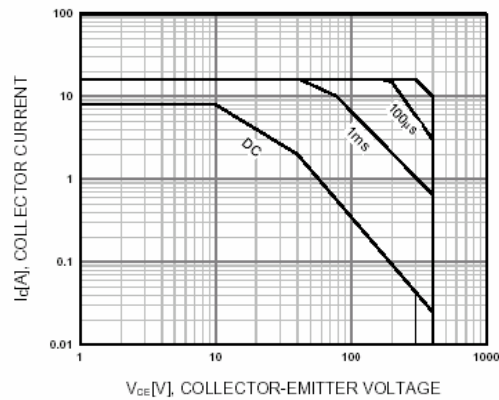


Figure 6. Safe Operating Area



Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

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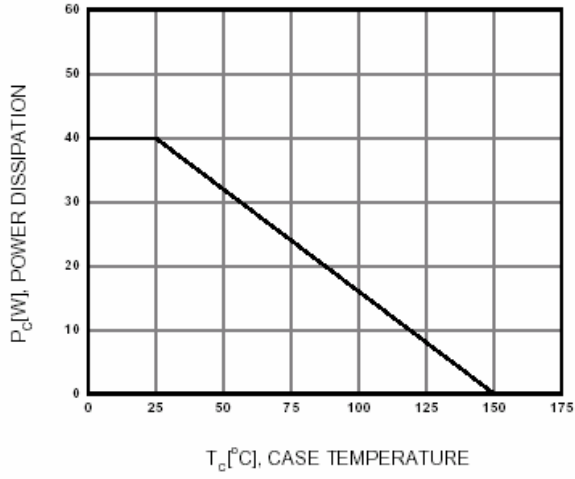


Figure 1. Power Derating