

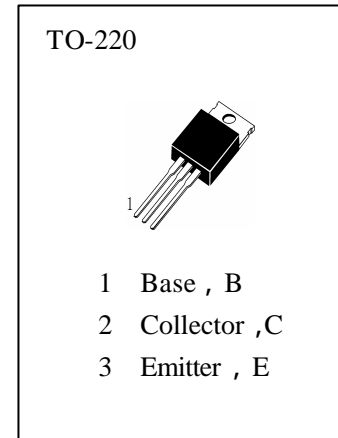


**APPLICATIONS**

high Voltage high-Speed Switching.

**ABSOLUTE MAXIMUM RATINGS (  $T_a=25$  )**

$T_{stg}$	—Storage Temperature.....	-55~150
$T_j$	—Junction Temperature.....	150
$P_C$	—Collector Dissipation( $T_c=25$ ).....	75W
$V_{CBO}$	—Collector-Base Voltage.....	700V
$V_{CEO}$	—Collector-Emitter Voltage.....	400V
$V_{EBO}$	—Emitter-Base Voltage.....	9V
$I_C$	—Collector Current ( DC ) .....	4A
$I_C$	—Collector Current ( Pulse ) .....	8A
$I_b$	—Base Current.....	2mA



**ELECTRICAL CHARACTERISTICS (  $T_a=25$  )**

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			1.0	mA	$V_{EB}=9V, I_C=0$
$H_{FE}(1)$	DC Current Gain	10		40		$V_{CE}=5V, I_C=1A$
$H_{FE}(2)$		8		40		$V_{CE}=5V, I_C=2A$
$V_{CE(sat1)}$	Collector- Emitter Saturation Voltage			0.5	V	$I_C=1A, I_B=0.2A$
$V_{CE(sat2)}$	Collector- Emitter Saturation Voltage			0.6	V	$I_C=2A, I_B=0.5A$
$V_{CE(sat3)}$	Collector- Emitter Saturation Voltage			1	V	$I_C=4A, I_B=1A$
$V_{BE(sat1)}$	Base-Emitter Saturation Voltage			1.2	V	$I_C=1A, I_B=0.2A$
$V_{BE(sat2)}$	Base-Emitter Saturation Voltage			1.6	V	$I_C=2A, I_B=0.5A$
$C_{ob}$	Output Capacitance		65		pF	$V_{CB}=10V, I_E=0, f=0.1MHz$
$f_T$	Current Gain-Bandwidth Product	4			MHz	$V_{CE}=10V, I_C=0.5A$
$t_{ON}$	Turn-On Time			0.8	$\mu S$	} $V_{CC}=125V, I_C=2A, I_{B1}=I_{B2}=0.4A$
$t_{STG}$	Storage Time			4	$\mu S$	
$t_R$	Rise Time			0.9	$\mu S$	

**$h_{FE}$  Classification**

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

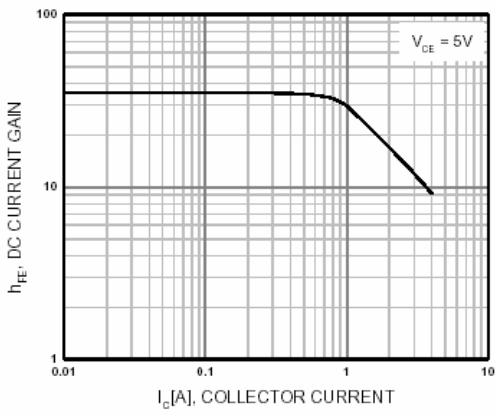


Figure 1. DC current Gain

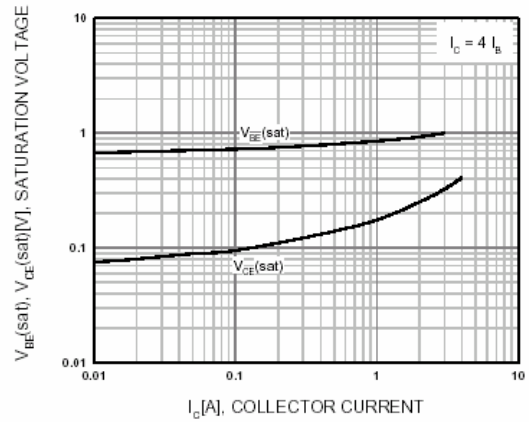


Figure 2. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

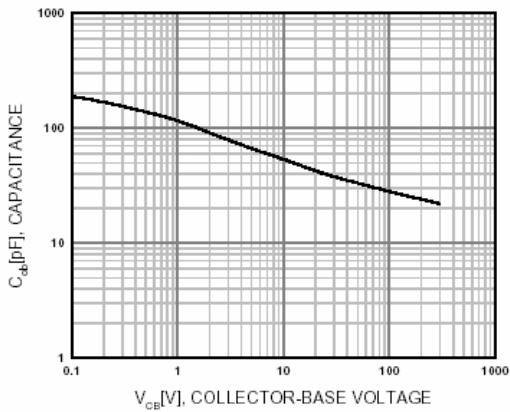


Figure 3. Collector Output Capacitance

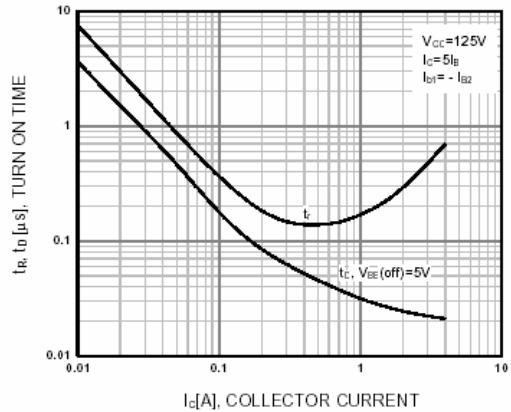


Figure 4. Turn On Time

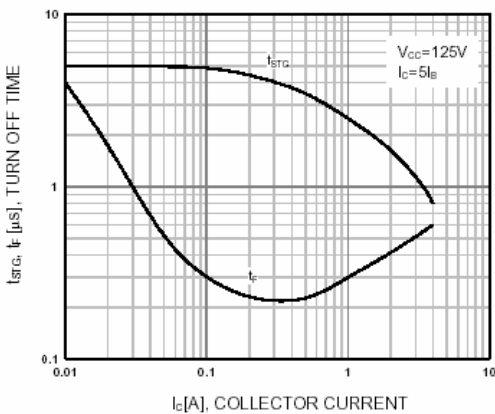


Figure 5. Turn Off Time

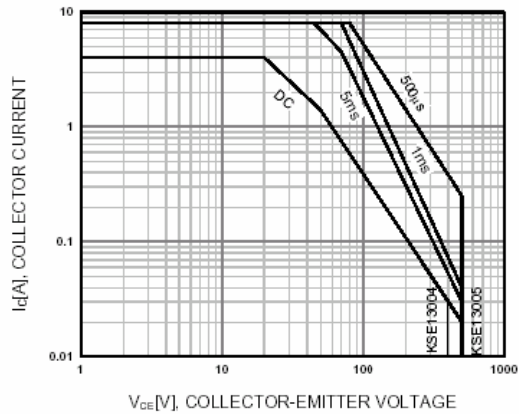


Figure 6. Safe Operating Area