

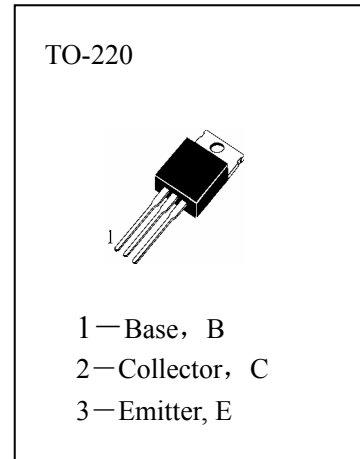
HP107

APPLICATIONS

High Voltage switching. Motor driving.

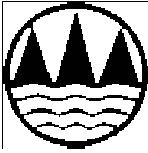
ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

T _{stg}	Storage Temperature	-55~150°C
T _j	Junction Temperature	150°C
P _C	Collector Dissipation (T _c =25°C)	80W
P _C	Collector Dissipation (T _a =25°C)	2W
V _{CBO}	Collector-Base Voltage	-100V
V _{CEO}	Collector-Emitter Voltage	-100V
V _{EBO}	Emitter-Base Voltage	-5V
I _C	Collector Current (DC)	-8A
I _C	Collector Current (Pulse)	-15A
I _B	Base Current (DC)	-1A



ELECTRICAL CHARACTERISTICS (T_a=25°C)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	-100			V	I _C =-30mA, I _B =0
I _{CEO}	Collector Cutoff Current			-50	μ A	V _{CE} =-50V, I _B =0
I _{CBO}	Collector Cutoff Current			-50	μ A	V _{CB} =-100V, I _E =0
I _{EBO}	Emitter-Base Cutoff Current			-2	mA	V _{EB} =-5V, I _C =0
H _{FE} (1)	DC Current Gain	1000		20000		V _{CE} =-4V, I _C =-3A
H _{FE} (2)		200				V _{CE} =-4V, I _C =-8A
V _{CE(sat1)}	Collector- Emitter Saturation Voltage			-2	V	I _C =-3A, I _B =-6mA
V _{CE(sat2)}				-2.5	V	I _C =-8A, I _B =-80mA
V _{BE(on)}	Base- Emitter On Voltage			-2.8	V	V _{CE} =-4V, I _C =-8A,
C _{ob}	Output Capacitance			300	pF	V _{CB} =-10V, I _E =0, f=0.1MHz



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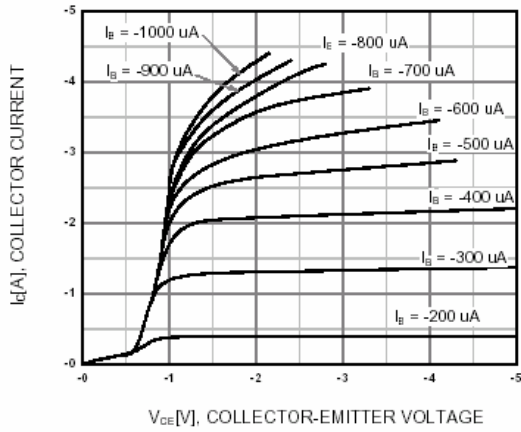


Figure 1. Static Characteristic

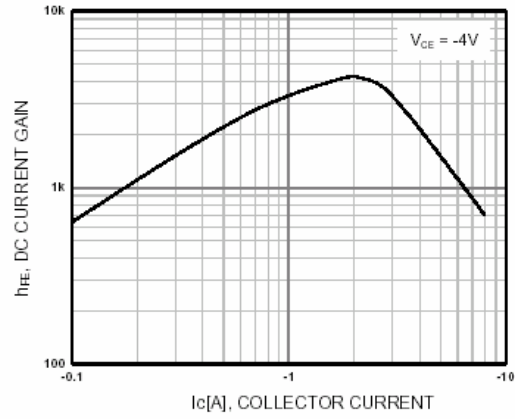


Figure 2. DC current Gain

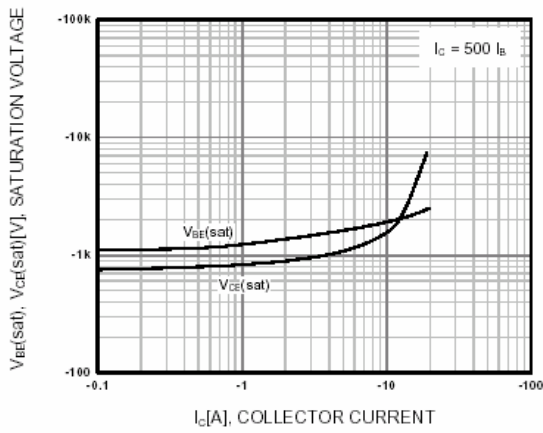


Figure 3. Collector-Emitter Saturation Voltage
Base-Emitter Saturation Voltage

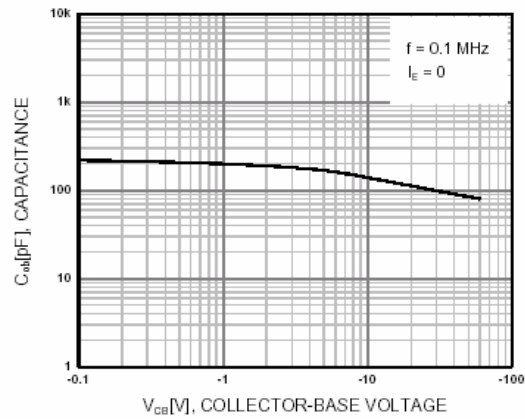


Figure 4. Collector Output Capacitance

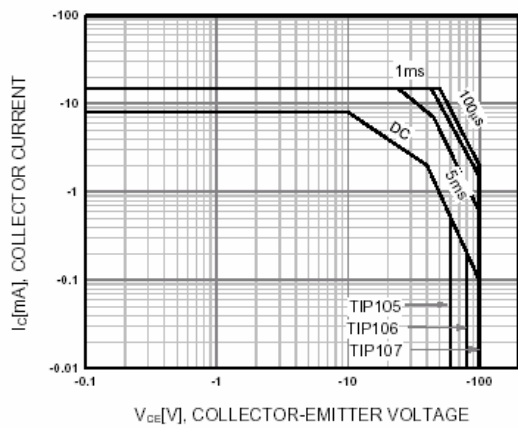


Figure 5. Safe Operating Area

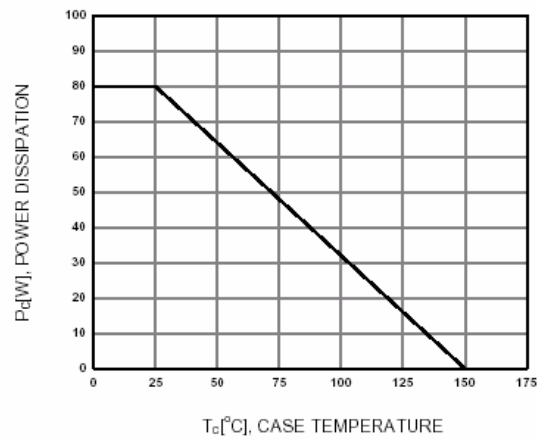


Figure 6. Power Derating