

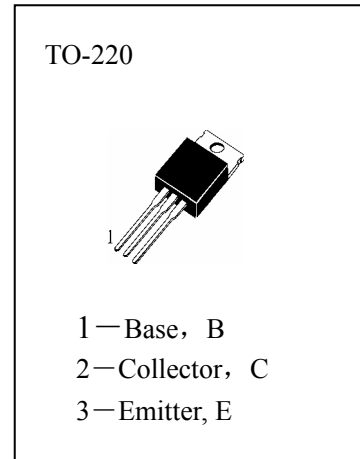
HBD436

APPLICATIONS

Medium Power Linear And Switching Application.

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

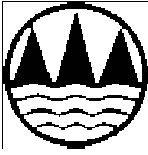
T _{stg}	Storage Temperature	-65~150°C
T _j	Junction Temperature	150°C
P _C	Collector Dissipation (T _c =25°C)	40W
V _{CBO}	Collector-Base Voltage	-32V
V _{CES}	Collector-Emitter Voltage	-32V
V _{EBO}	Emitter-Base Voltage	-5V
I _C	Collector Current (DC)	-4A
I _C	Collector Current (Pulse)	-7A
I _B	Base Current (DC)	-1A



ELECTRICAL CHARACTERISTICS (T_a=25°C)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	-32			V	I _C =-100mA, I _B =0
I _{CBO}	Collector Cutoff Current			-100	μ A	V _{CB} =-32V, I _E =0
I _{EBO}	Emitter-Base Cutoff Current			-1	mA	V _{EB} =-5V, I _C =0
I _{CES}	Collector Cutoff Current			-100	μ A	V _{CE} =-32V, V _{BE} =0
H _{FE} (1)	DC Current Gain	40	140			V _{CE} =-5V, I _C =-10mA
*H _{FE} (2)		85	140			V _{CE} =-1V, I _C =-500mA
*H _{FE} (3)		50				V _{CE} =-1V, I _C =-2A
*V _{CE(sat1)}	Collector- Emitter Saturation Voltage		-0.2	-0.5	V	I _C =-2A, I _B =-0.2A
*V _{BE(on)}	Base- Emitter On Voltage			-1.1	V	V _{CE} =-1V, I _C =-2A,
f _T	Current Gain-Bandwidth Product	3			MHZ	I _C =-250mA, V _{CE} =-1V

*Pulse Test: PW=300 μ S, Duty Cycle=1.5% Pulsed



HBD436

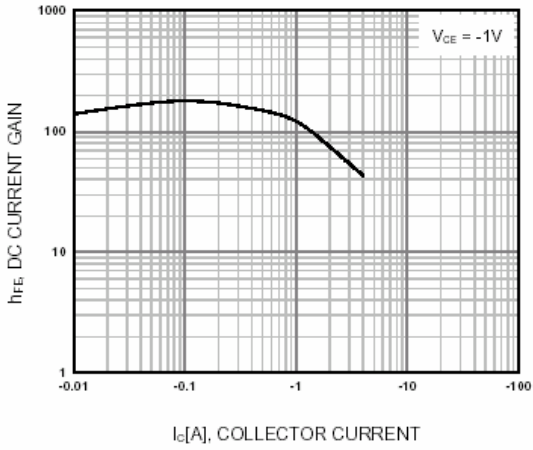


Figure 1. DC current Gain

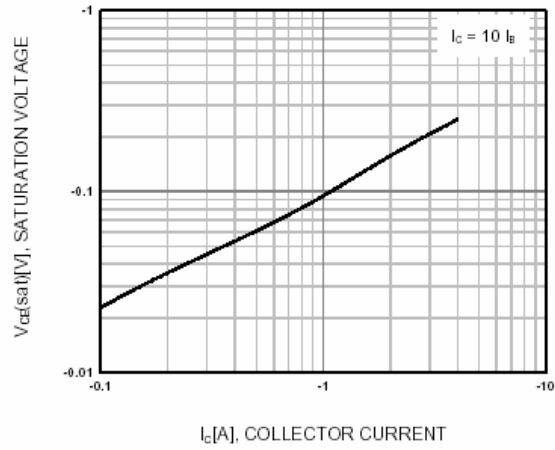


Figure 2. Collector-Emitter Saturation Voltage

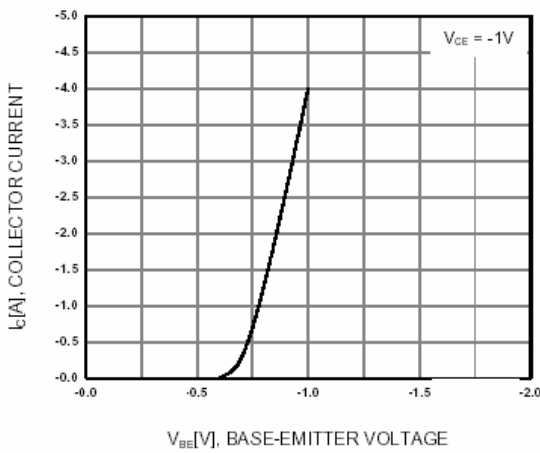


Figure 3. Base-Emitter On Voltage

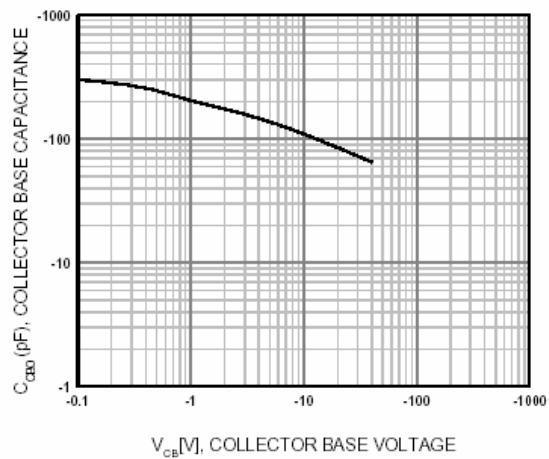


Figure 4. Collector-Base Capacitance

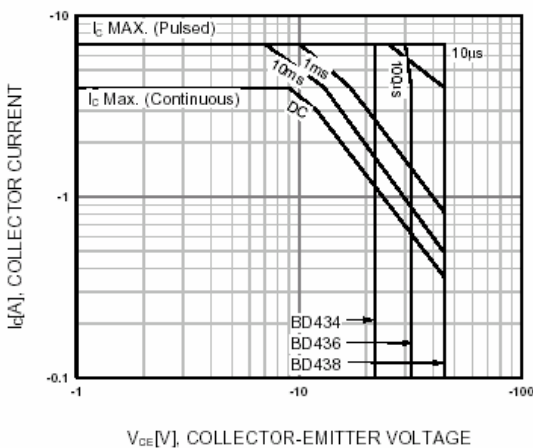


Figure 5. Safe Operating Area

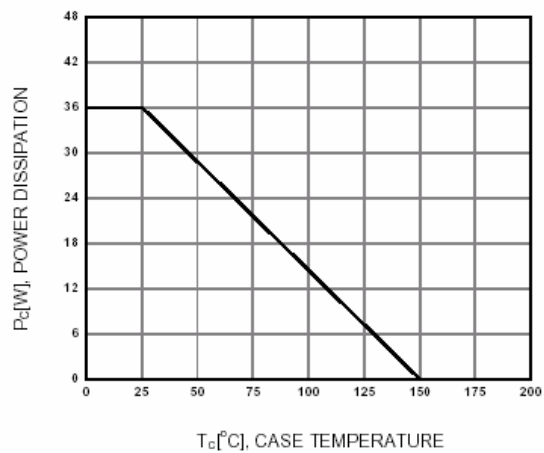


Figure 6. Power Derating