



HB834

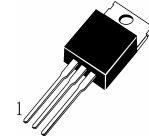
APPLICATIONS

Low Frequency Power Amplifier.

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

T_{stg} —Storage Temperature.....	-55~150
T_j —Junction Temperature.....	150
P_C —Collector Dissipation ($T_c=25$)	30W
P_C —Collector Dissipation ($T_a=25$)	1.5W
V_{CBO} —Collector-Base Voltage.....	-60V
V_{CEO} —Collector-Emitter Voltage.....	-60V
V_{EBO} —Emitter-Base Voltage.....	-7V
I_C —Collector Current.....	-3A
I_b —Base Current.....	-0.5A

TO-220



- 1 Base , B
- 2 Collector , C
- 3 Emitter, E

ELECTRICAL CHARACTERISTICS ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV_{CEO}	Collector-Emitter Breakdown Voltage	-60			V	$I_C=-50mA, I_B=0$
I_{CBO}	Collector Cut-off Current			-100	μA	$V_{CB}=-60V, I_E=0$
I_{EBO}	Emitter Cut-off Current			-100	μA	$V_{EB}=-7V, I_C=0$
$H_{FE}(1)$	DC Current Gain	60		200		$V_{CE}=-5V, I_C=-0.5A$
$H_{FE}(2)$	DC Current Gain	20				$V_{CE}=-5V, I_C=-3A$
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage		-0.5	-1	V	$I_C=-3A, I_B=-0.3A$
$V_{BE(on)}$	Base-Emitter On Voltage		-0.7	-1	V	$V_{CE}=-5V, I_C=-0.5A$
f_t	Current Gain-Bandwidth Product		9		MHZ	$V_{CE}=-5V, I_C=-0.5A,$
C_{ob}	Output Capacitance		150		pF	$V_{CB}=-10V, I_E=0, f=1MHz$
t_{ON}	Turn-On Time		0.4		μS	$I_{B1} = -I_{B2} = -0.2A$ $V_{CC} = -30V$
t_{STG}	Storage Time		1.7		μS	
t_F	Fall Time		0.5		μS	

h_{FE} Classification

O

Y

60—120

100—200

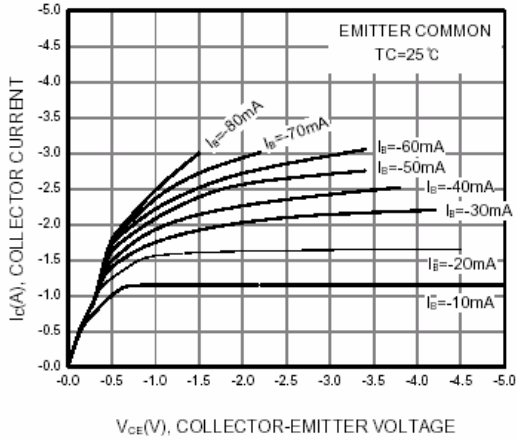


Figure 1. Static Characteristic

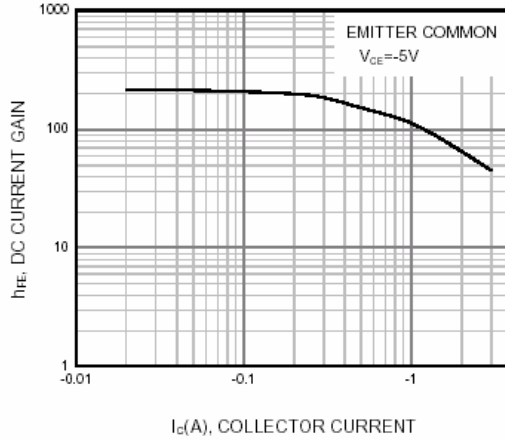


Figure 2. DC current Gain

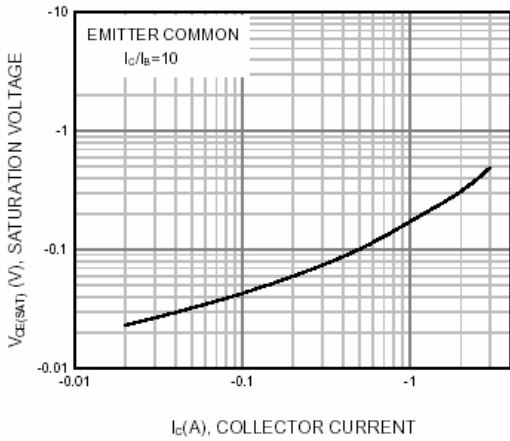


Figure 3. Collector-Emitter Saturation Voltage

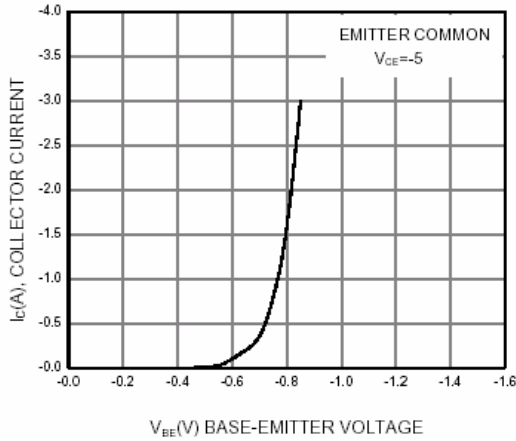


Figure 4. Base-Emitter On Voltage

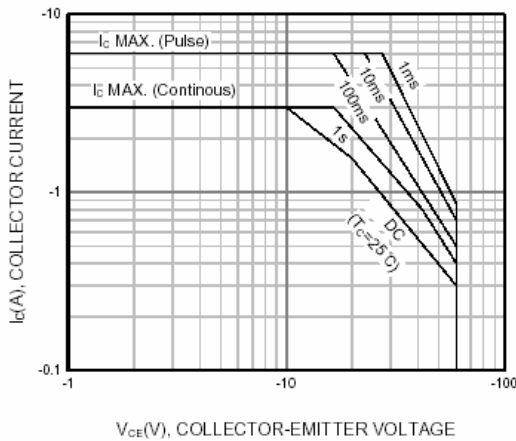


Figure 5. Safe Operating Area

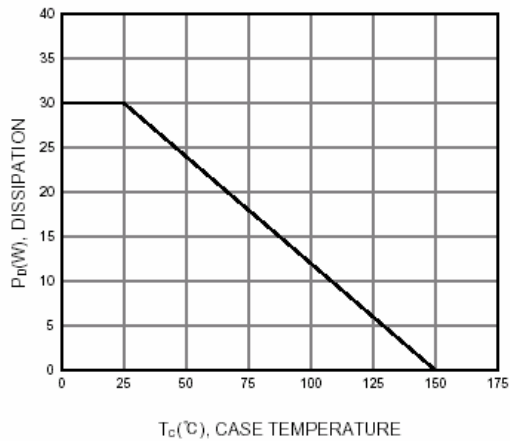


Figure 6. Power Derating