

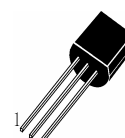
**APPLICATIONS**

Audio frequency power Aamplifier& Medium
Speed switching 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.....	750mW
V_{CBO}	Collector-Base Voltage.....	-60V
V_{CEO}	Collector-Emitter Voltage.....	-50V
V_{EBO}	Emitter-Base Voltage.....	-6V
I_C	Collector Current.....	-1A
I_{CP}	Collector Current (<u>Pulse</u>)	-2A

TO-92



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

ELECTRICAL CHARACTERISTICS ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV_{CBO}	Collector-Base Breakdown Voltage	-60			V	$I_C=-10\mu A$, $I_E=0$
BV_{CEO}	Collector-Emitter Breakdown Voltage	-50			V	$I_C=-1mA$, $I_B=0$
BV_{EBO}	Emitter-Base Breakdown Voltage	-6			V	$I_E=-10\mu A$, $I_C=0$
I_{CBO}	Collector Cut-off Current			-100	nA	$V_{CB}=-60V$, $I_E=0$
I_{EBO}	Emitter Cut-off Current			-100	nA	$V_{EB}=-5V$, $I_C=0$
$H_{FE}(1)$	DC Current Gain	135		600		$V_{CE}=-2V$, $I_C=-100mA$
$H_{FE}(2)$	DC Current Gain	81				$V_{CE}=-2V$, $I_C=-1A$
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage		-0.2	-0.3	V	$I_C=-1A$, $I_B=-50mA$
$V_{BE(sat)}$	Base-Emitter Saturation Voltage		-0.9	-1.2	V	$I_C=-1A$, $I_B=-50mA$
$V_{BE(on)}$	Base-Emitter On Voltage	-600	-650	-700	mV	$V_{CE}=-2V$, $I_C=-50mA$
f_r	Current Gain-Bandwidth Product	70	120		MHz	$V_{CE}=-2V$, $I_C=-100mA$
C_{ob}	Output Capacitance		25		pF	$V_{CB}=-10V$, $I_E=0$, $f=1MHz$

 h_{FE} Classification

Y

G

L

135—270

200—400

300—600

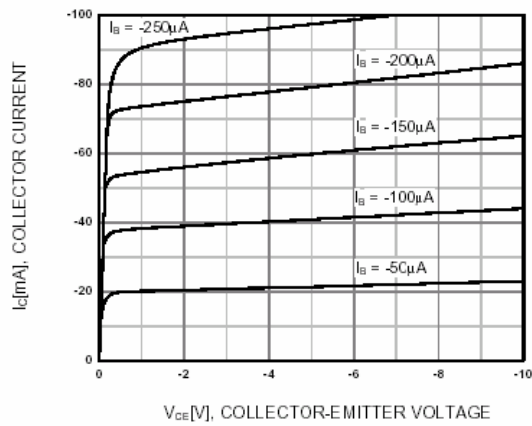


Figure 1. Static Characteristic

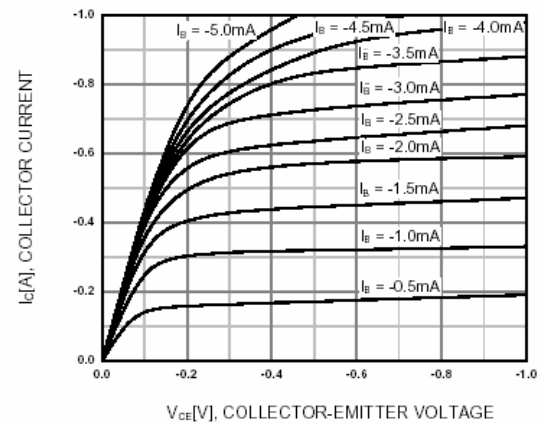


Figure 2. Static Characteristic

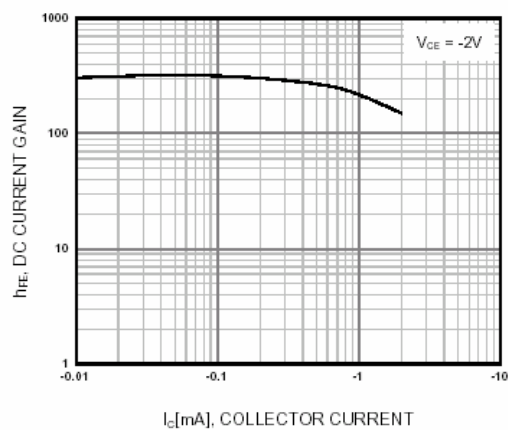


Figure 3. DC current Gain

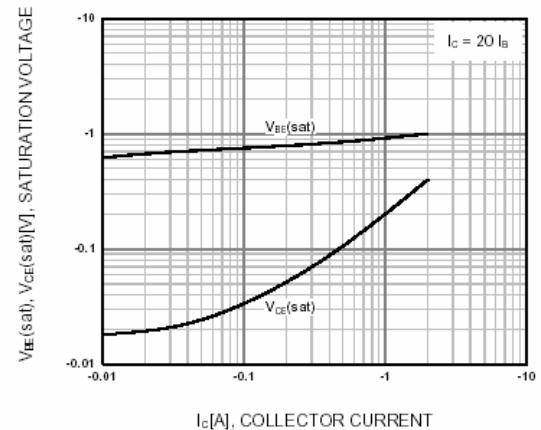


Figure 4. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

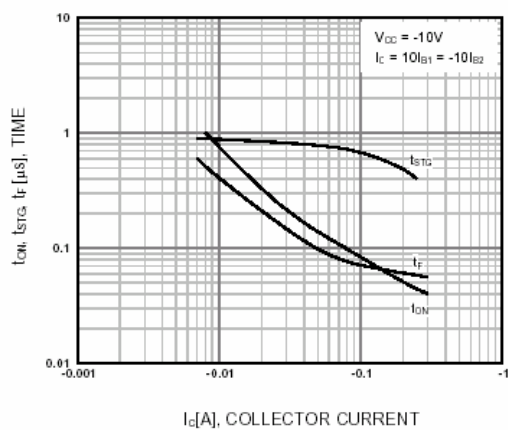


Figure 5. Switching Time

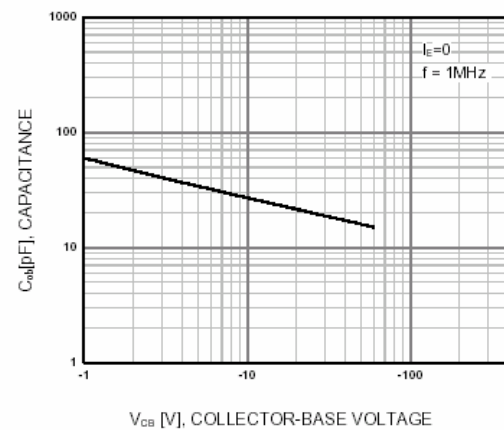


Figure 6. Collector Output Capacitance

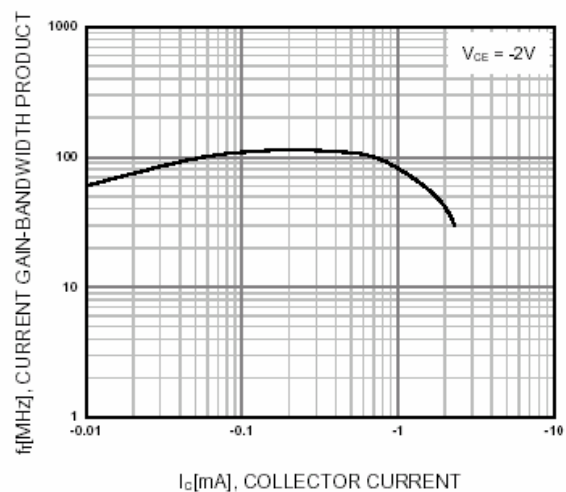


Figure 7. Current Gain Bandwidth Product

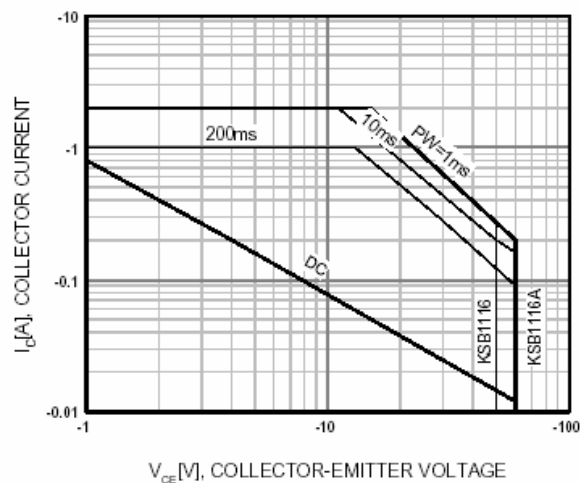


Figure 8. Safe Operating Area

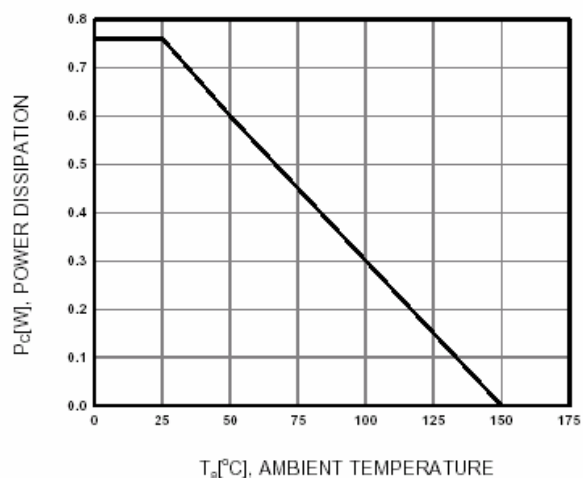


Figure 9. Power Derating