



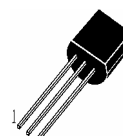
APPLICATIONS

Audio Frequency Amplifier.

ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$)

T_{stg}	Storage Temperature	-55~150 $^{\circ}\text{C}$
T_j	Junction Temperature	150 $^{\circ}\text{C}$
P_C	Collector Dissipation	625W
V_{CBO}	Collector-Base Voltage	40V
V_{CEO}	Collector-Emitter Voltage	20V
V_{EBO}	Emitter-Base Voltage	5V
I_C	Collector Current	500mA

TO-92



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

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
I_{CBO}	Collector Cut-off Current			0.1	μA	$V_{\text{CB}}=25\text{V}$, $I_E=0$
I_{EBO}	Emitter Cut-off Current			0.1	μA	$V_{\text{EB}}=3\text{V}$, $I_C=0$
$H_{\text{FE}}(1)$	DC Current Gain	85		500		$V_{\text{CE}}=1\text{V}$, $I_C=50\text{mA}$
$H_{\text{FE}}(2)$		40				$V_{\text{CE}}=1\text{V}$, $I_C=500\text{mA}$
$V_{\text{CE(sat)}}$	Collector- Emitter Saturation Voltage			0.6	V	$I_C=500\text{mA}$, $I_B=50\text{mA}$
$V_{\text{BE(sat)}}$	Base- Emitter Saturation Voltage			1.2	V	$I_C=500\text{mA}$, $I_B=50\text{mA}$
$V_{\text{BE(on)}}$	Base-Emitter On Voltage	0.6		0.73	V	$V_{\text{CE}}=1\text{V}$, $I_C=10\text{mA}$
BV_{CBO}	Collector-Base Breakdown Voltage	40			V	$I_C=100\mu\text{A}$, $I_E=0$
BV_{CEO}	Collector-Emitter Breakdown Voltage	20			V	$I_C=2\text{mA}$, $I_B=0$
BV_{EBO}	Emitter- Base Breakdown Voltage	5			V	$I_E=100\mu\text{A}$, $I_C=0$

h_{FE} Classification

B	C	D	E
85—160	120—200	160—300	270—500



Typical Characteristics

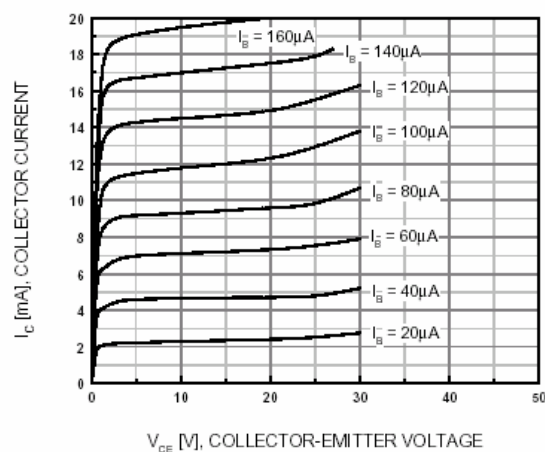


Figure 1. Static Characteristic

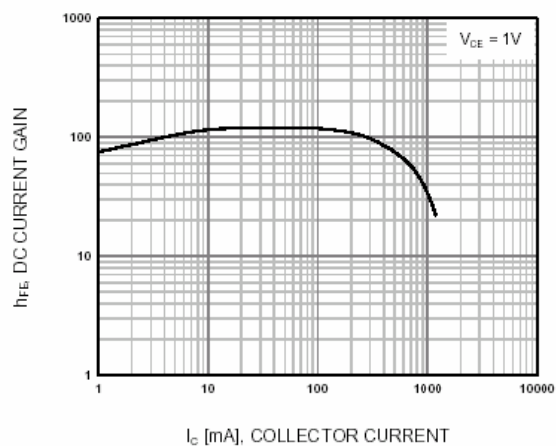


Figure 2. DC current Gain

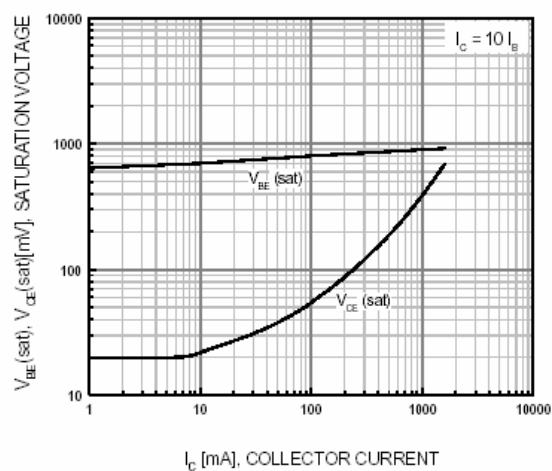


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

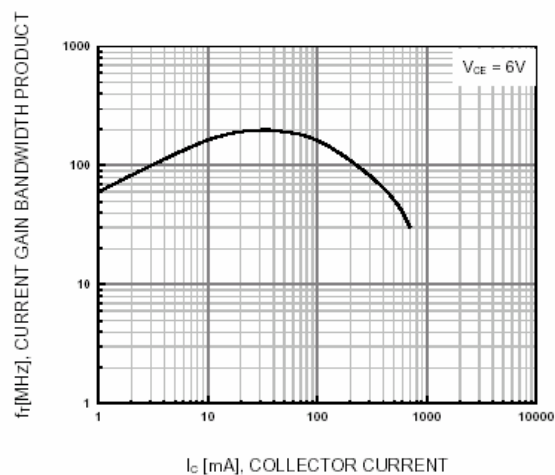


Figure 4. Current Gain Bandwidth Product