



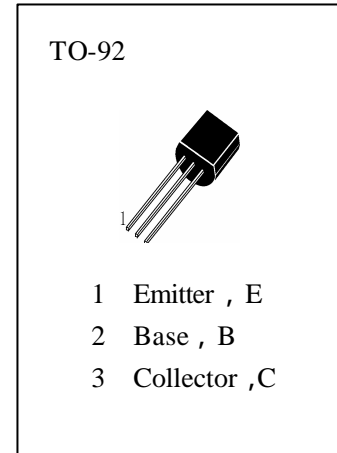
# H643

## 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.....500mW
- $V_{CBO}$ —Collector-Base Voltage.....-40V
- $V_{CEO}$ —Collector-Emitter Voltage.....-20V
- $V_{EBO}$ —Emitter-Base Voltage.....-5V
- $I_C$ —Collector Current.....-500mA



## ELECTRICAL CHARACTERISTICS ( $T_a=25$ )

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BVCBO	Collector-Base Breakdown Voltage	-40			V	$I_C=-100 \mu A, I_E=0$
BVCEO	Collector-Emitter Breakdown Voltage	-20			V	$I_C=-10mA, I_B=0$
BVEBO	Emitter-Base Breakdown Voltage	-5			V	$I_E=-10 \mu A, I_C=0$
$I_{CBO}$	Collector Cut-off Current			-200	nA	$V_{CB}=-25V, I_E=0$
$I_{EBO}$	Emitter Cut-off Current			-200	nA	$V_{EB}=-3V, I_C=0$
$h_{FE}$	DC Current Gain	40		400		$V_{CE}=-1V, I_C=-100mA$
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage		-0.3	-0.4	V	$I_C=-500mA, I_B=-50mA$
$V_{BE(sat)}$	Base-Emitter Saturation Voltage		-1.0	-1.3	V	$I_C=-500mA, I_B=-50mA$

## $h_{FE}$ Classification

R	O	Y	G
40—80	70—140	120—240	200—400

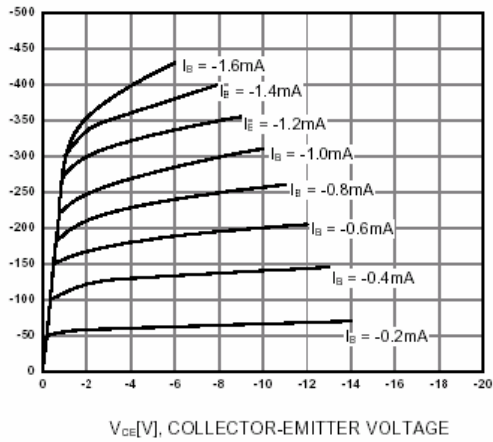


Figure 1. Static Characteristic

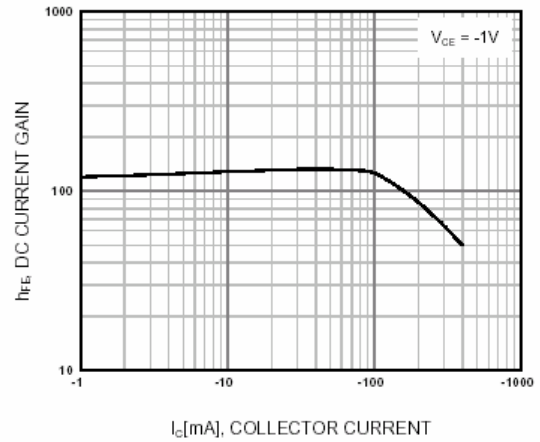


Figure 2. DC current Gain

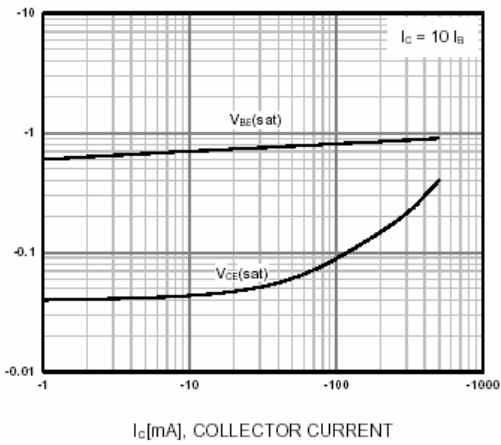


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

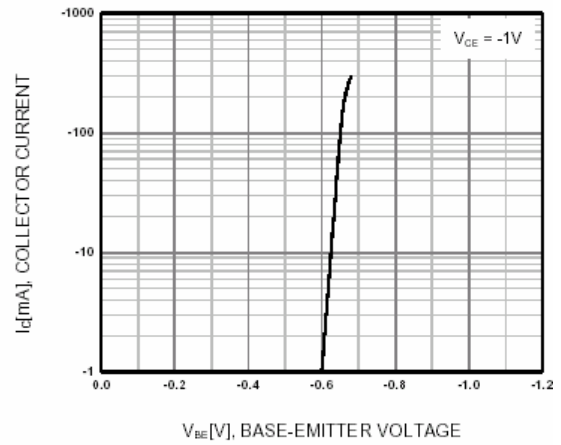


Figure 4. Base-Emitter On Voltage

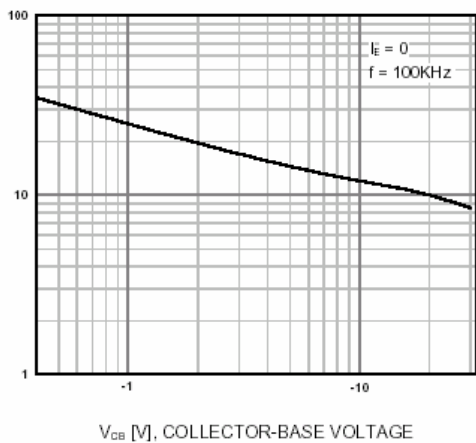


Figure 5. Collector Output Capacitance