



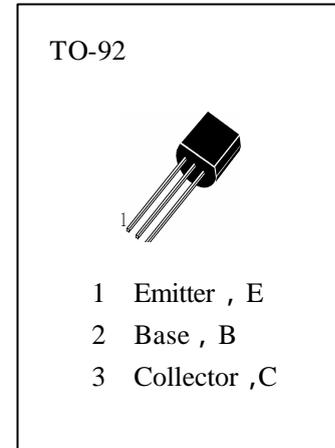
# H9015

## APPLICATIONS

LOW FREQUENCY , LOW NOISE AMPLIFIER

### ABSOLUTE MAXIMUM RATINGS ( $T_a=25$ )

$T_{stg}$ —Storage Temperature.....	-55~150
$T_j$ —Junction Temperature.....	150
$P_C$ —Collector Dissipation.....	450mW
$V_{CBO}$ —Collector-Base Voltage.....	-50V
$V_{CEO}$ —Collector-Emitter Voltage.....	-45V
$V_{EBO}$ —Emitter-Base Voltage.....	-5V
$I_C$ —Collector Current.....	-100mA



### ELECTRICAL CHARACTERISTICS ( $T_a=25$ )

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
$I_{CBO}$	Collector Cut-off Current			-0.05	$\mu A$	$V_{CB}=-30V, I_E=0$
$I_{EBO}$	Emitter Cut-off Current			-0.05	$\mu A$	$V_{EB}=-5V, I_C=0$
$H_{FE(1)}$	DC Current Gain	60		800		$V_{CE}=-5V, I_C=-1mA$
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage			0.7	V	$I_C=-100mA, I_B=-5mA$
$V_{BE(sat)}$	Base-Emitter Saturation Voltage			-1.0	V	$I_C=-100mA, I_B=-5mA$
$BV_{CBO}$	Collector-Base Breakdown Voltage	-50			V	$I_C=-100 \mu A, I_E=0$
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	-45			V	$I_C=-1mA, I_B=0$
$BV_{EBO}$	Emitter-Base Breakdown Voltage	-5			V	$I_E=-100 \mu A, I_C=0$
$C_{ob}$	Output Capacitance		4.5	7.0	pF	$V_{CB}=-10V, I_E=0, f=1MHz$
$f_T$	Current Gain-Bandwidth Product	100			MHz	$V_{CE}=-5V, I_C=-10mA$

### $h_{FE}$ Classification

A	B	C	D
60—150	100—300	200—600	400—800



## Typical Characteristics

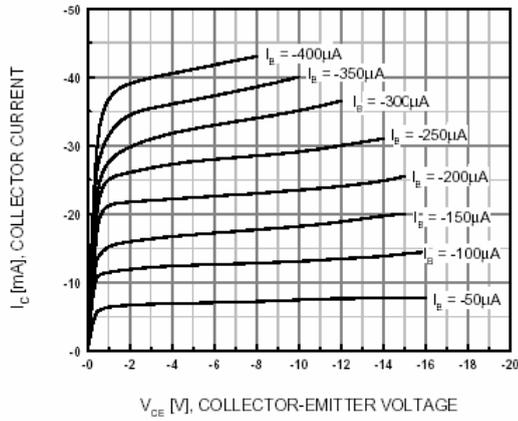


Figure 1. Static Characteristic

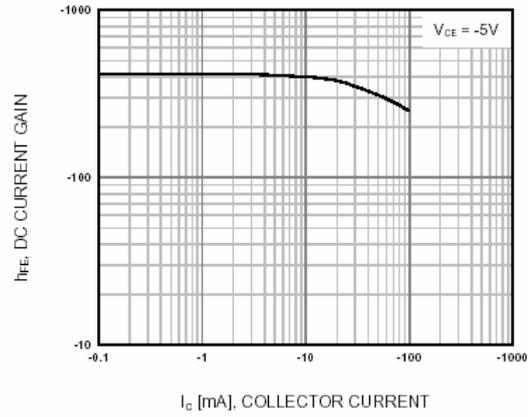


Figure 2. DC current Gain

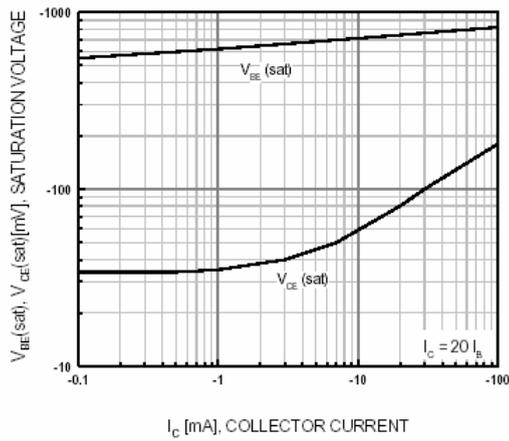


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

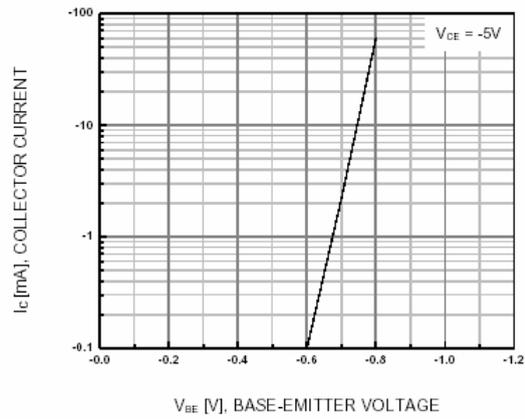


Figure 4. Base-Emitter On Voltage

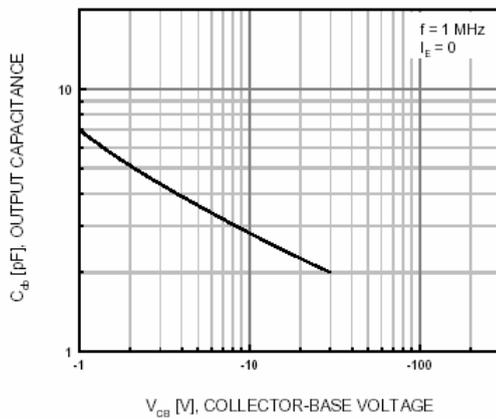


Figure 5. Collector Output Capacitance

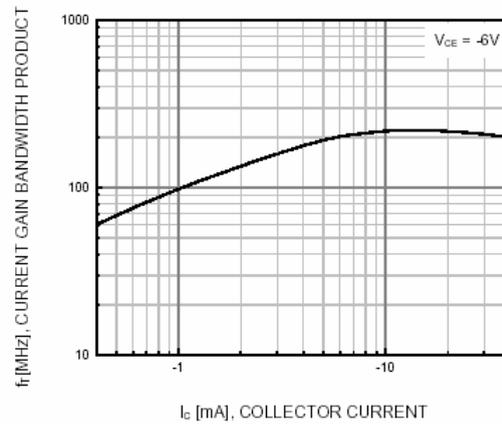


Figure 6. Current Gain Bandwidth Product