

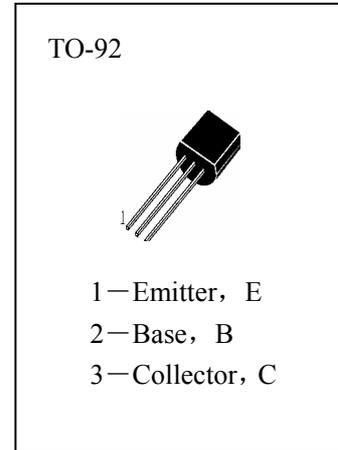


# H1008

## Low Frequency Amplifier Medium Speed Switching

### ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)

T <sub>stg</sub>	Storage Temperature	-55~150°C
T <sub>j</sub>	Junction Temperature	150°C
P <sub>C</sub>	Collector Dissipation	800mW
V <sub>CBO</sub>	Collector-Base Voltage	80V
V <sub>CEO</sub>	Collector-Emitter Voltage	60V
V <sub>EBO</sub>	Emitter-Base Voltage	8V
I <sub>C</sub>	Collector Current	700mA



### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
I <sub>CBO</sub>	Collector Cut-off Current			100	nA	V <sub>CB</sub> =60V, I <sub>E</sub> =0
I <sub>EBO</sub>	Emitter Cut-off Current			100	nA	V <sub>EB</sub> =5V, I <sub>C</sub> =0
H <sub>FE(1)</sub>	DC Current Gain	40		400		V <sub>CE</sub> =2V, I <sub>C</sub> =50mA
V <sub>CE(sat)</sub>	Collector- Emitter Saturation Voltage		0.2	0.4	V	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage		0.86	1.1	V	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	80			V	I <sub>C</sub> =100 μ A, I <sub>E</sub> =0
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	60			V	I <sub>C</sub> =10mA, I <sub>B</sub> =0
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	8			V	I <sub>E</sub> =10 μ A, I <sub>C</sub> =0
f <sub>T</sub>	Current Gain-Bandwidth Product	30	50		MHz	V <sub>CE</sub> =10V, I <sub>C</sub> =50mA
C <sub>ob</sub>	Output Capacitance		8		pF	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz

### h<sub>FE</sub> Classification

R	O	Y	GR
40—80	70—140	120—240	240—400

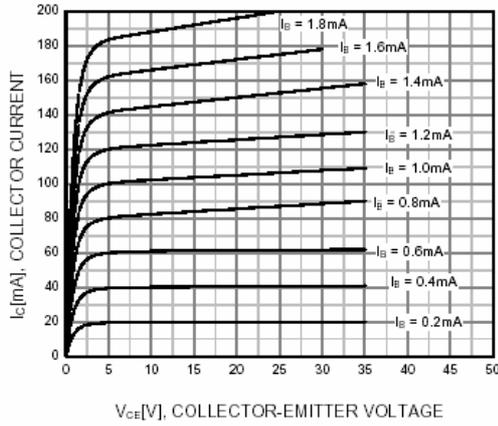


Figure 1. Static Characteristic

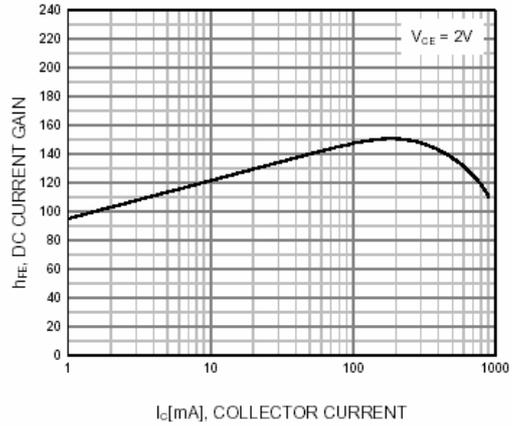


Figure 2. DC current Gain

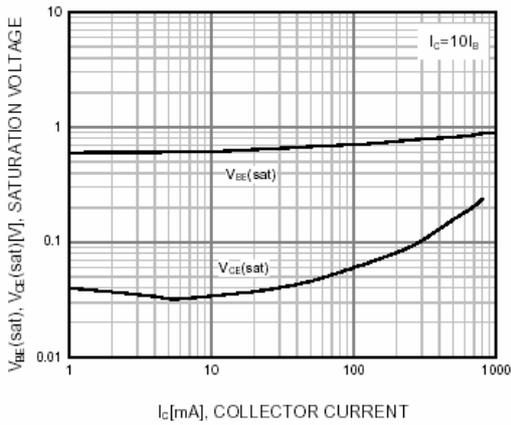


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

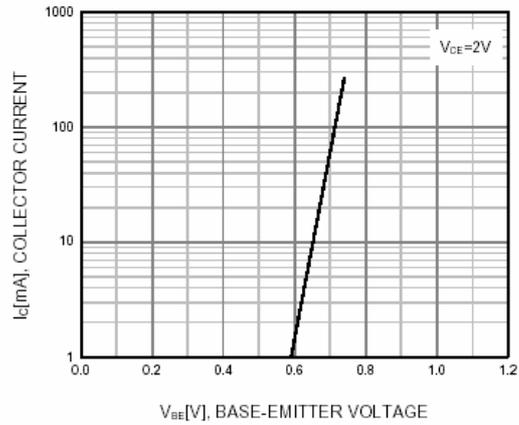


Figure 4. Base-Emitter On Voltage

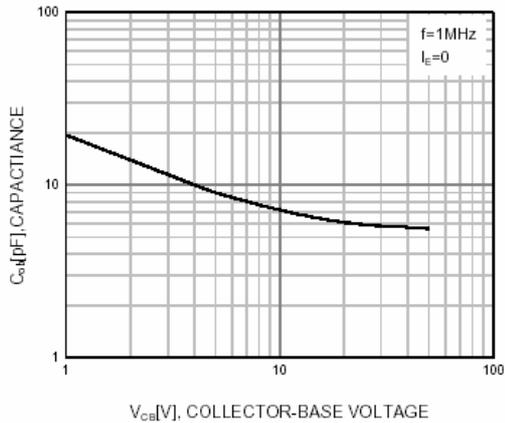


Figure 5. Collector Output Capacitance