NPN SILICON TRANSISTO

KI SEMICONDUCTOR

C1008

■ LOW FREQUENCY AMPLIFIER MEDIUM SPEED SWITCHING

■ ABSOLUTE MAXIMUM RATINGS（T_a=25℃）

T_{stg}——Storage Temperature…… -55~150℃

T_j——Junction Temperature……150℃

P_C——Collector Dissipation……800mW

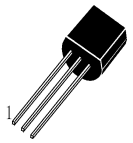
V_{CBO}——Collector-Base Voltage……80V

V_{CEO}——Collector-Emitter Voltage……60V

V_{EBO}——Emitter-Base Voltage……8V

I_C——Collector Current……700mA

TO-92



1—Emitter，E
2—Base，B
3—Collector，C

■ ELECTRICAL CHARACTERISTICS（T_a=25℃）

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
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	40		400		V_{CE}=2V, I_C=50mA
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage		0.2	0.4	V	I_C=500mA, I_B=50mA
$V_{BE(sat)}$	Base-Emitter Saturation Voltage		0.86	1.1	V	I_C=500mA, I_B=50mA
BV_{CBO}	Collector-Base Breakdown Voltage	80			V	I_C=100μA, I_E=0
BV_{CEO}	Collector-Emitter Breakdown Voltage	60			V	I_C=10mA, I_B=0
BV_{EBO}	Emitter-Base Breakdown Voltage	8			V	I_E=10μA，I_C=0
f_T	Current Gain-Bandwidth Product	30	50		MHz	V_{CE}=10V, I_C=50mA
Cob	Output Capacitance		8		pF	V_{CB}=10V, I_E=0，f=1MHz

■ h_{FE} Classification

R	O	Y	GR
40—80	70—140	120—240	240—400

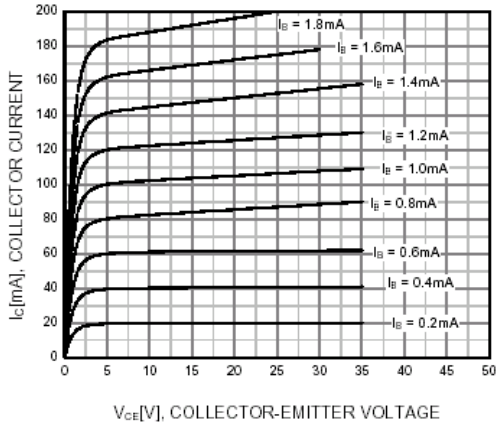


Figure 1. Static Characteristic

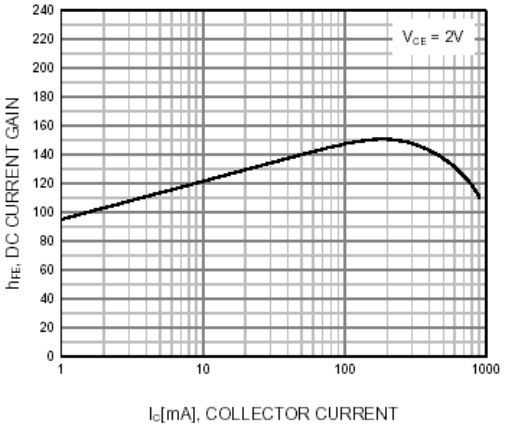


Figure 2. DC current Gain

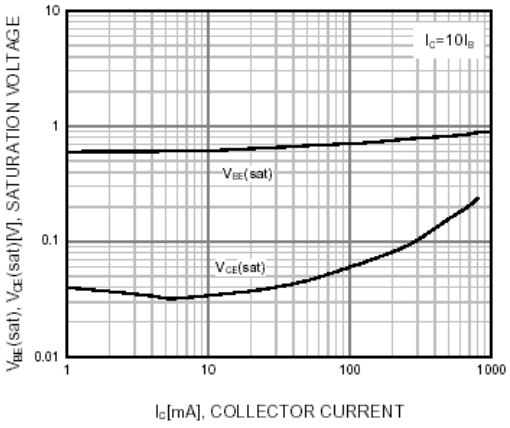


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

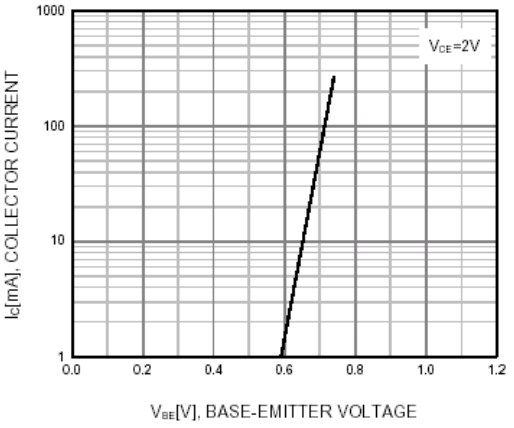


Figure 4. Base-Emitter On Voltage

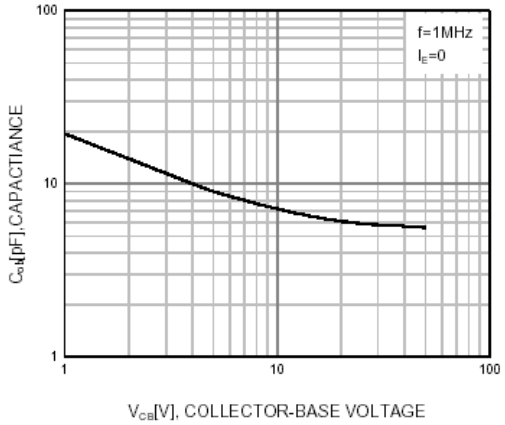


Figure 5. Collector Output Capacitance