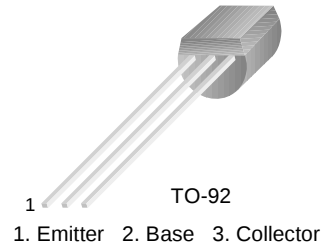


SS9018

SS9018

AM/FM Amplifier, Local Oscillator of FM/VHF Tuner

- High Current Gain Bandwidth Product $f_T=1.1$ GHz (Typ)



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	50	mA
P_C	Collector Power Dissipation	400	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=100\mu\text{A}$, $I_E=0$	30			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=1.0\text{mA}$, $I_B=0$	15			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=100\mu\text{A}$, $I_C=0$	5			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=12\text{V}$, $I_E=0$			50	nA
h_{FE}	Emitter Cut-off Current	$V_{CE}=5\text{V}$, $I_C=1.0\text{mA}$	28	100	198	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10\text{mA}$, $I_B=1\text{mA}$			0.5	V
C_{ob}	Output Capacitance	$V_{CB}=10\text{V}$, $I_E=0$ $f=1\text{MHz}$		1.3	1.7	pF
f_T	Current Gain Bandwidth Product	$V_{CE}=5\text{V}$, $I_C=5\text{mA}$	700	1100		MHz

h_{FE} Classification

Classification	D	E	F	G	H	I
h_{FE}	28 ~ 45	39 ~ 60	54 ~ 80	72 ~ 108	97 ~ 146	132 ~ 198

Typical Characteristics

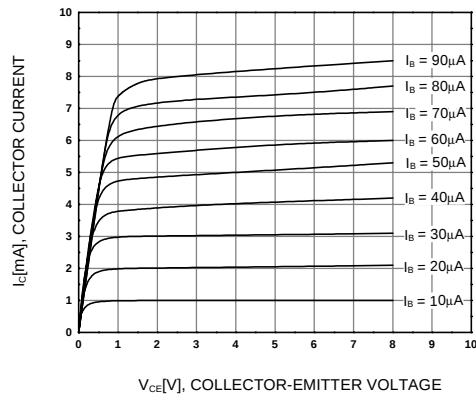


Figure 1. Static Characteristic

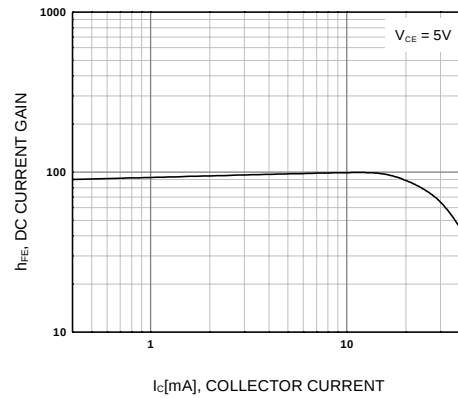


Figure 2. DC current Gain

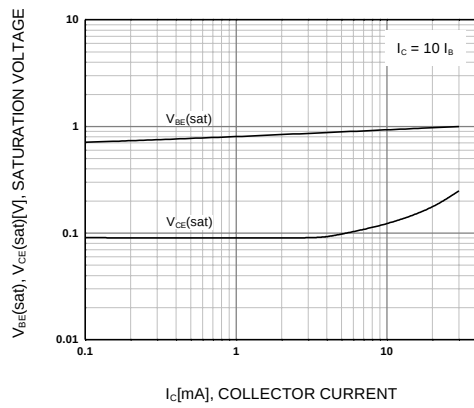


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

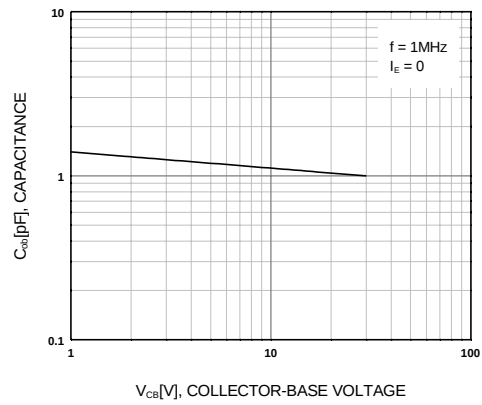


Figure 4. Output Capacitance

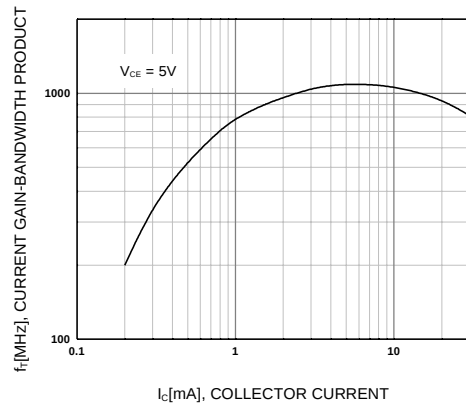


Figure 5. Current Gain Bandwidth Product

Package Dimensions

TO-92



Dimensions in Millimeters

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