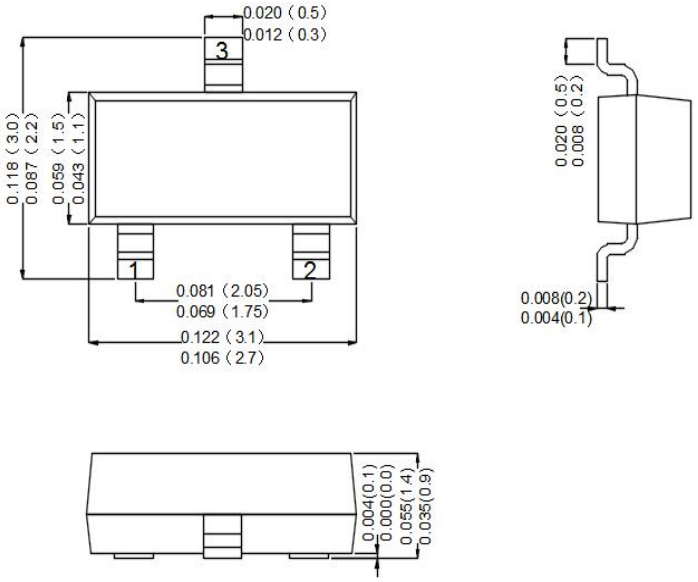
S9018

General Purpose NPN Transistor

Features

SOT-23

- AM/FM Amplifier
- Local Oscillator of FM/VHF Tuner
- High Current Gain Bandwidth Product f_T=1.1 GHz(Typ)



Dimensions in inches and (millimeters)

Mechanical Data

- Case:Molded Plastic,SOT-23
- Epoxy:UL 94V-0 rate flame retardant
- Terminals:Plated Leads Solderable per MIL-STD-750,Method-2026.
- Marking: J8
- Mounting Position : Any.
- Equivalent Circuit:

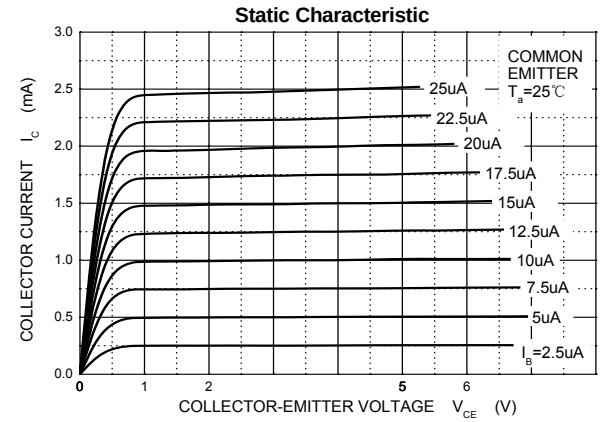
Maximum Ratings Maximum Ratings (Rating at 25℃ ambient temperature unless otherwise specified.)

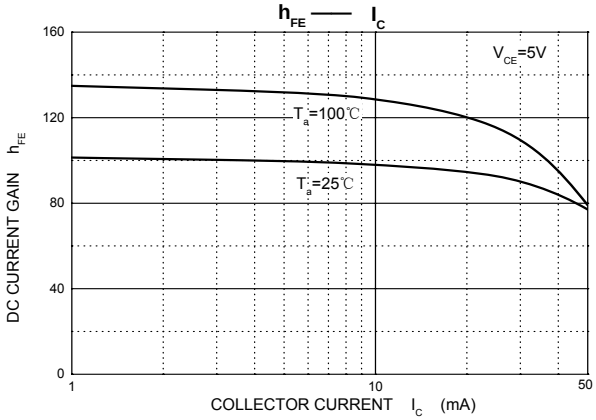
Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current-Continuous	I_C	50	mA
Collector Power Dissipation	P_C	200	mW
Junction Temp erature	T_j	150	℃
Storage Temperature	T_{stg}	-55 to + 150	℃

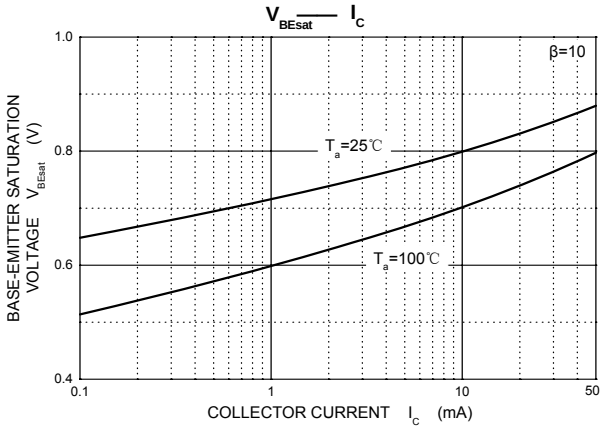
Electrical Characteristics (Rating at 25℃ ambient temperature unless otherwise specified.)

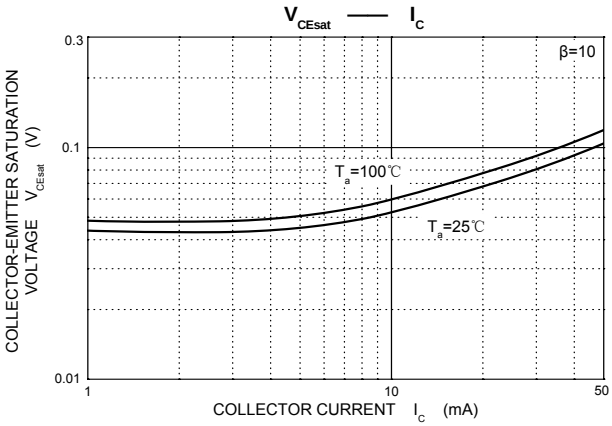
Parameter	Symbol	Test conditions	MIN	TYP	MAX	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= 100μA, I_E=0	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= 1mA, I_B=0	15			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_C= 100μA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=12V, I_E=0			0.05	μA
Collector cut-off current	I_{CEO}	V_{CE}=12V, I_B=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=3V, I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=5V, I_C=1mA	105		195	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= 10mA, I_B=1mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C= 10mA, I_B=1mA			1.4	V
Transition frequency	f_T	VCE=5V, I_C= 5mA f=400MHz	600			MHz

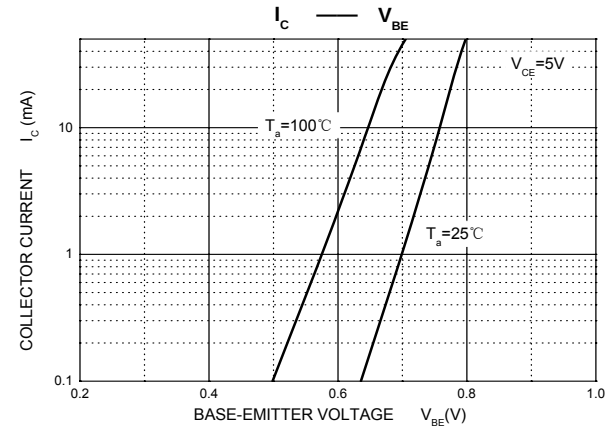
Rating And Characteristic Curves

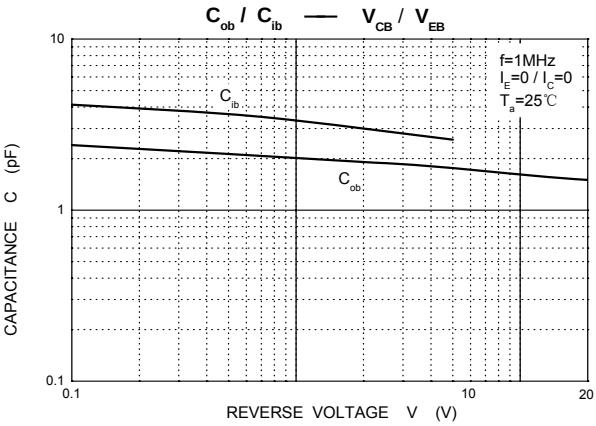


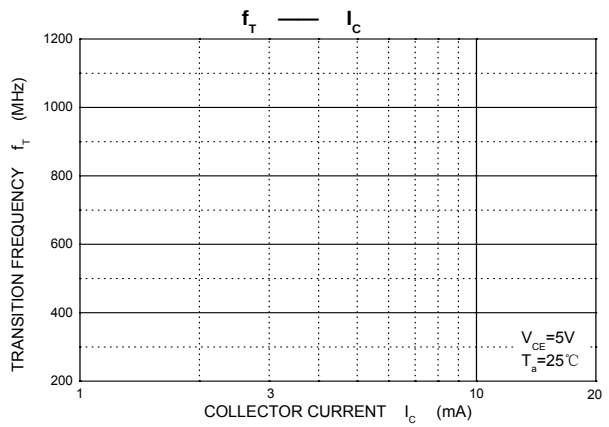


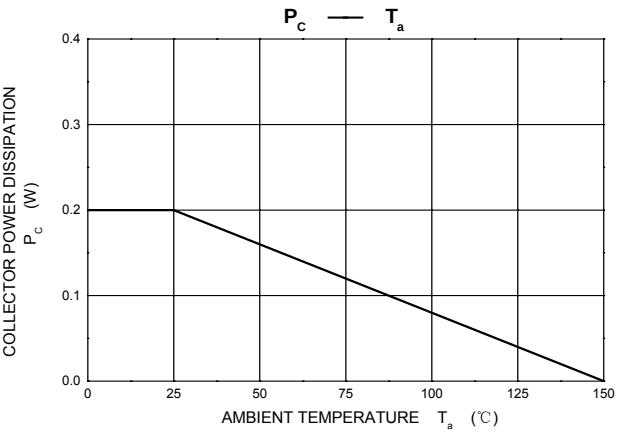












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