

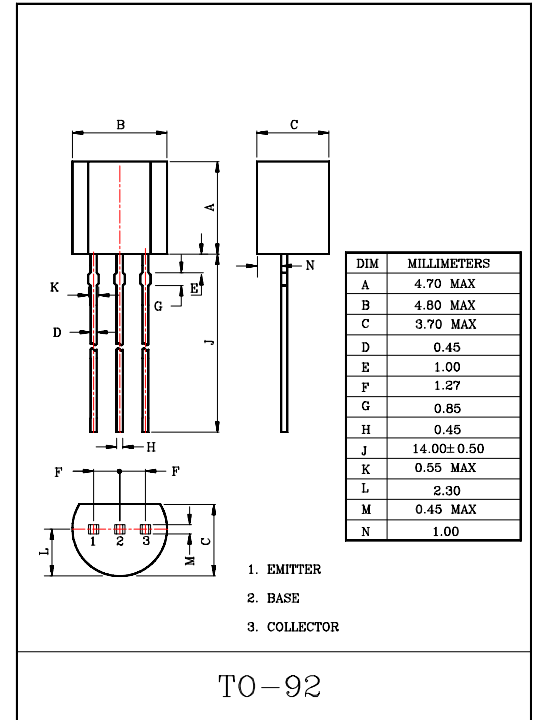
HIGH FREQUENCY LOW NOISE AMPLIFIER APPLICATION.
HF, VHF BAND AMPLIFIER APPLICATION.

FEATURES

- Small Reverse Transfer Capacitance
: $C_{re}=0.65\text{pF(Typ.)}$.
- Low Noise Figure :NF=2.2dB(Typ.) at $f=100\text{MHz}$.

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	20	mA
Emitter Current	I_E	-20	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ\text{C}$



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=40\text{V}, I_E=0$	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$	-	-	0.1	μA
DC Current Gain	$h_{FE}(\text{Note})$	$V_{CE}=5\text{V}, I_C=1\text{mA}$	40	-	198	
Reverse Transfer Capacitance	C_{re}	$V_{CE}=6\text{V}, f=1\text{MHz}$	-	-	1.0	pF
Transition Frequency	f_T	$V_{CE}=6\text{V}, I_E=-1\text{mA}, f=200\text{MHz}$	260	-	-	MHz
Collector-Base Time Constant	$C_c \cdot r_{bb'}$	$V_{CE}=6\text{V}, I_E=-1\text{mA}, f=30\text{MHz}$	-	-	30	pS
Noise Figure	NF	$V_{CE}=6\text{V}, I_E=-1\text{mA}, f=100\text{MHz}$	-	2.2	4.0	dB
Power Gain	G_{pe}		15	-	-	dB

Note) h_{FE} Classification E : 40~59, F : 54~80, G : 72~108, H : 97~146, I : 130~198