

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=100MHz.

### MAXIMUM RATING (Ta=25°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	°C
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C



### ELECTRICAL CHARACTERISTICS (Ta=25°C)

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

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Datasheets for electronics components.