

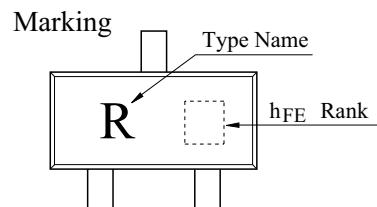
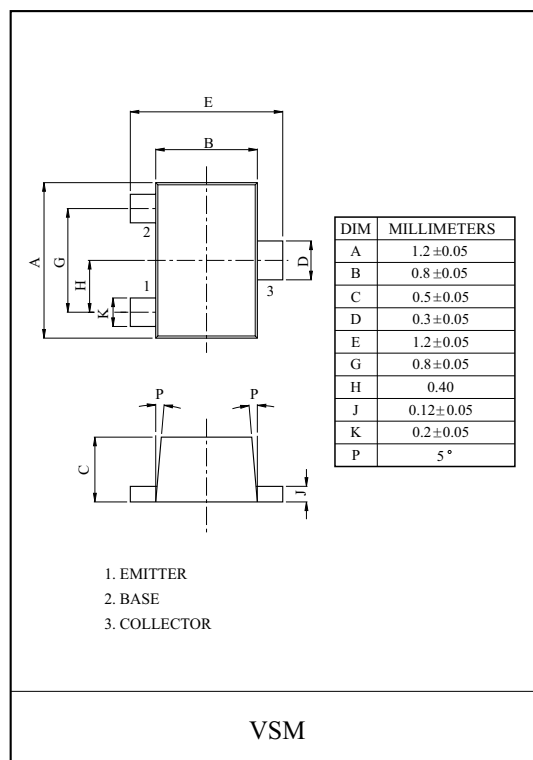
VHF/UHF WIDE BAND AMPLIFIER APPLICATION.

FEATURES

- Low Noise Figure, High Gain.
- Small $r_{bb'}C_c$ (Typ. 4pS).

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	20	V
Collector-Emitter Voltage	V_{CEO}	11	V
Emitter-Base Voltage	V_{EBO}	3	V
Collector Current	I_C	50	mA
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 ~ 150	℃



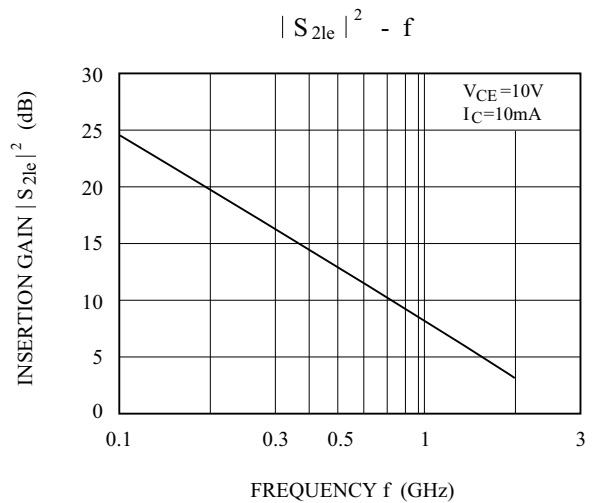
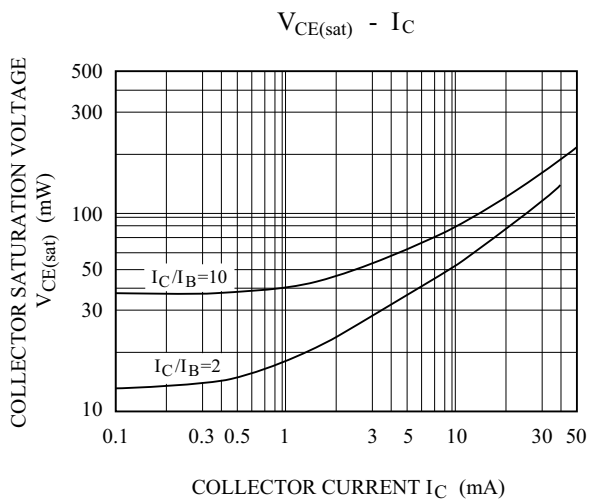
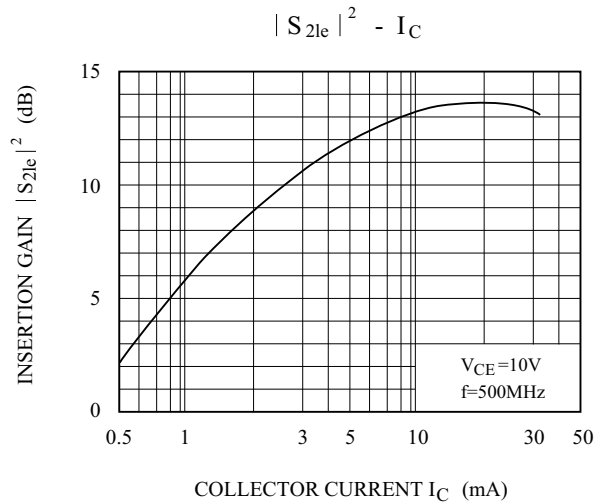
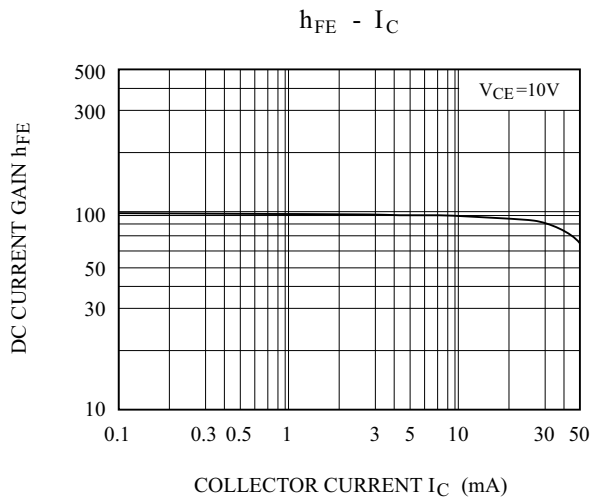
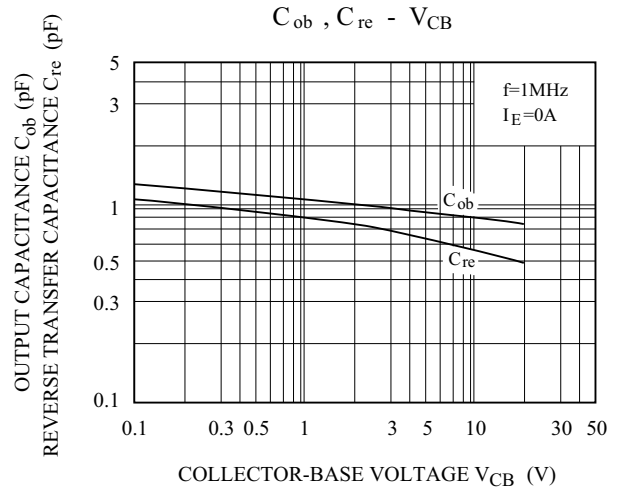
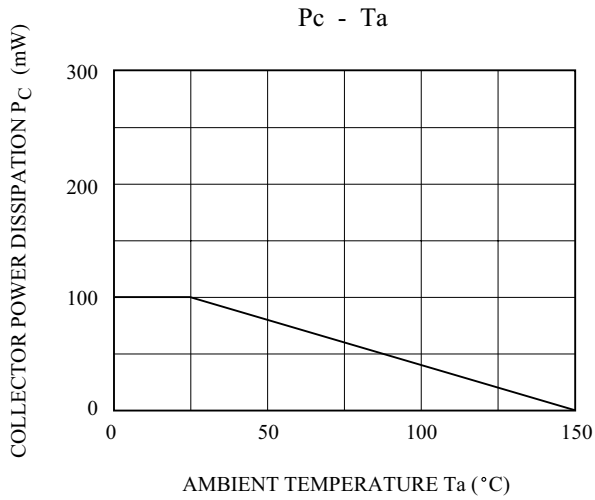
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=10V, I_E=0$	-	-	500	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=2V, I_C=0$	-	-	0.5	μA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=5mA$	-	-	0.5	V
DC Current Gain	h_{FE} (Note)	$V_{CE}=10V, I_C=5mA$	56	-	180	
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	-	0.8	1.5	pF
Collector-Base Time Constant	$r_{bb'}C_c$	$V_{CE}=10V, I_E=10mA, f=31.8MHz$	-	4	12	pS
Transition Frequency	f_T	$V_{CE}=10V, I_C=10mA, f=500MHz$	1.4	3.2	-	GHz
Noise Figure	NF	$V_{CE}=6V, I_C=2mA, f=500MHz, R_g=50\Omega$	-	3.5	-	dB

Note) h_{FE} Classification : F:56~120, G:82~180

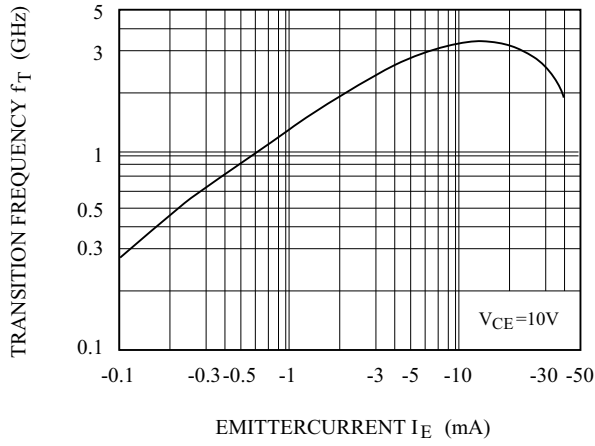
KTC3730V

TYPICAL CHARACTERISTICS (Ta=25°C)

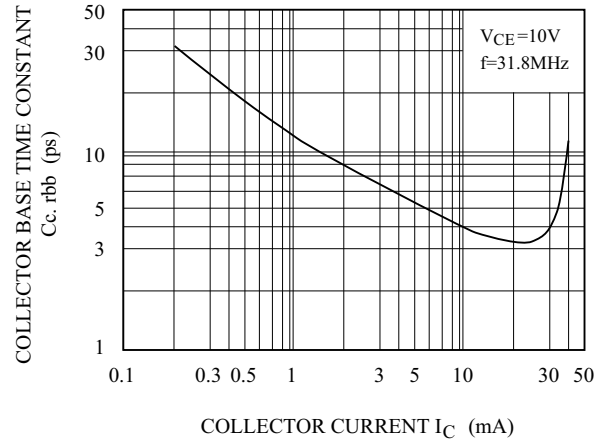


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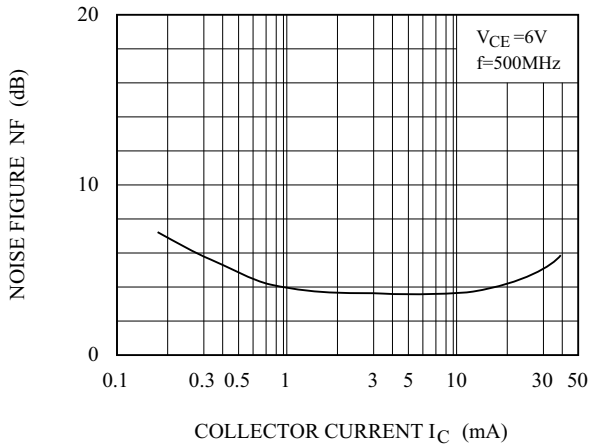
$f_T - I_E$



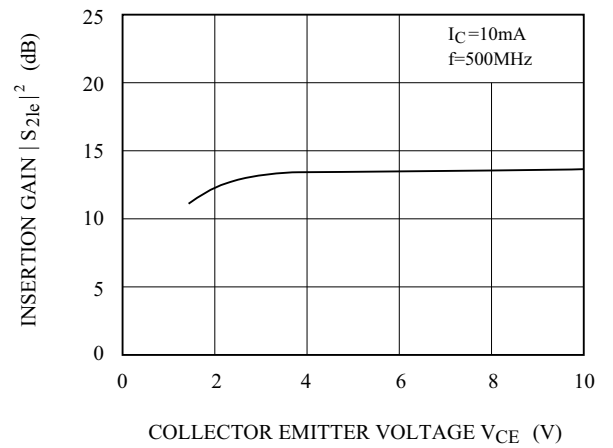
$r_{bb}, C_c - I_C$



$NF - I_C$



$|S_{21e}|^2 - V_{CE}$



$NF - V_{CE}$

