

VHF/UHF BAND LOW NOISE AMPLIFIER APPLICATIONS.

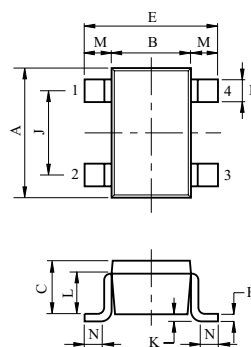
# TENTATIVE

### FEATURES

- Low Noise Figure, High Gain.
- NF=1.4dB (f=2GHz),  $|S_{21e}|^2=13.5\text{dB}$  (f=2GHz).

### MAXIMUM RATING (Ta=25 )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	8	V
Collector-Emitter Voltage	$V_{CEO}$	4.5	V
Emitter-Base Voltage	$V_{EBO}$	1.5	V
Collector Current	$I_C$	15	mA
Base Current	$I_B$	7.5	mA
Collector Power Dissipation	$P_C$	67.5	mW
Junction Temperature	$T_j$	125	
Storage Temperature Range	$T_{stg}$	-55 125	

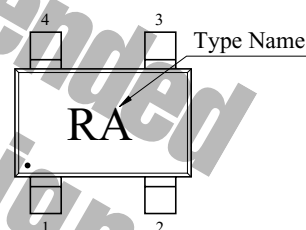


DIM	MILLIMETERS
A	2.00 ± 0.20
B	1.25 ± 0.15
C	0.90 ± 0.10
D	0.3+0.10/-0.05
E	2.10 ± 0.20
H	0.15+0.1/-0.06
J	1.30
K	0.00 ~ 0.10
L	0.70
M	0.42
N	0.10 MIN

1. EMITTER
2. BASE
3. EMITTER
4. COLLECTOR

USQ

### Marking



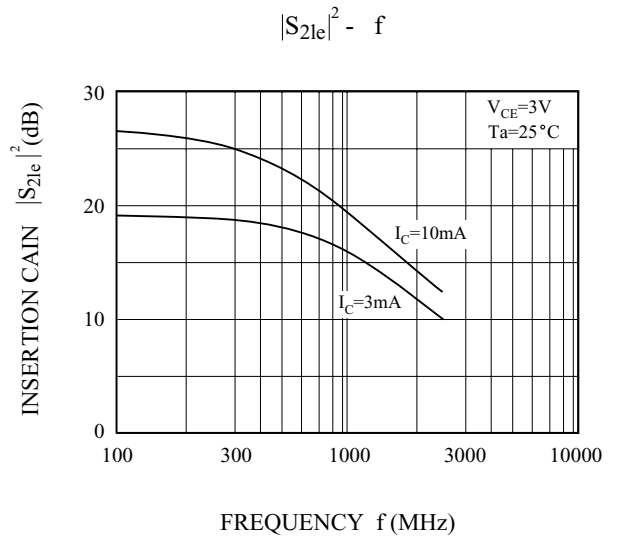
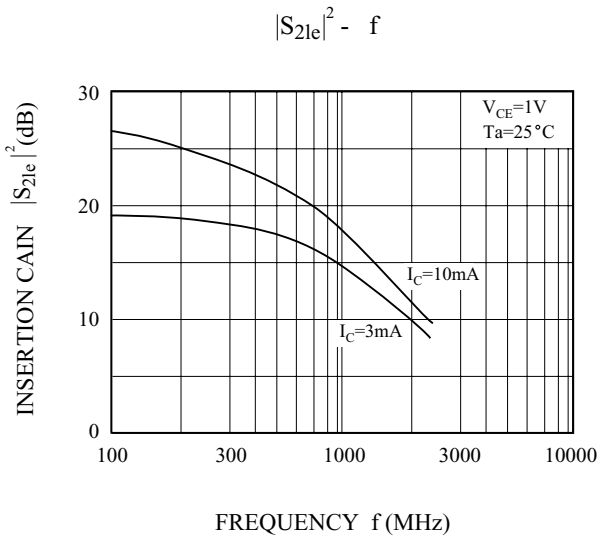
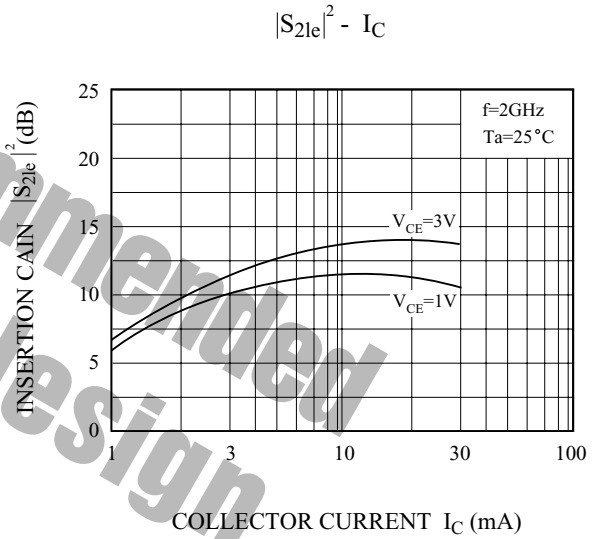
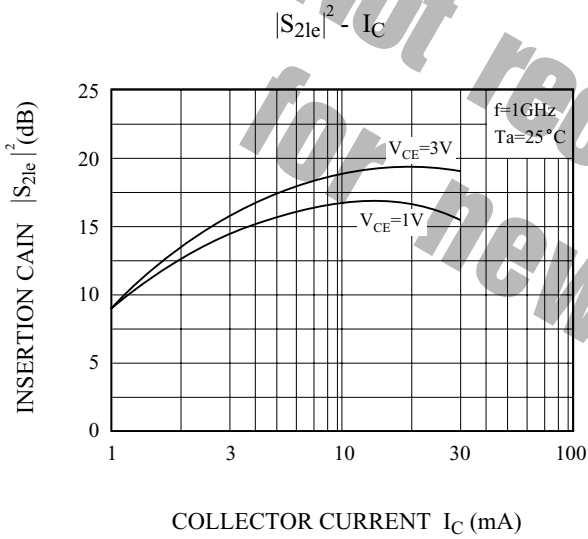
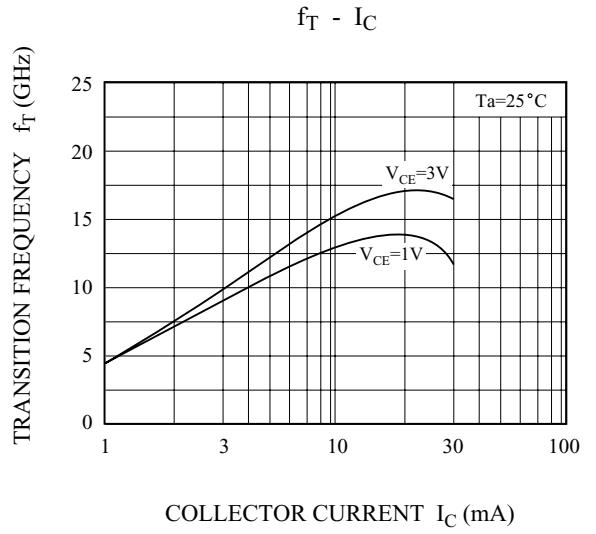
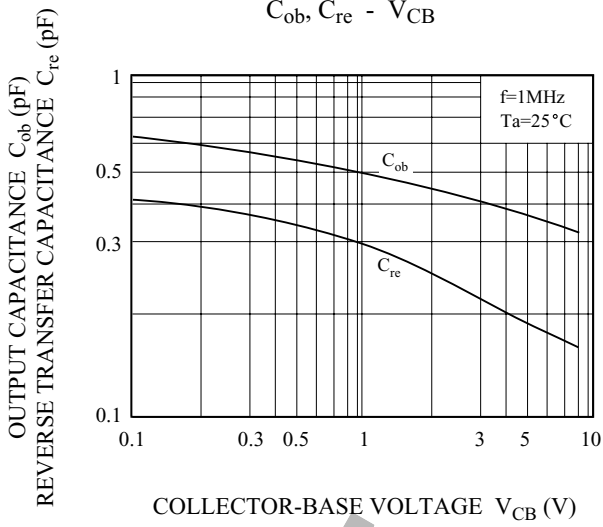
### ELECTRICAL CHARACTERISTICS (Ta=25 )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=8V, I_E=0$	-	-	1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=1V, I_C=0$	-	-	1	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE}=3V, I_C=10mA$	50	-	150	-
Output Capacitance	$C_{ob}$	$V_{CB}=3V, I_E=0, f=1MHz$ (Note1)	-	0.4	0.65	pF
Reverse Transfer Capacitance	$C_{re}$		-	0.2	0.45	pF
Transition Frequency	$f_T$	$V_{CE}=3V, I_C=10mA$	13	16	-	GHz
Insertion Gain	$ S_{21e} ^2$ (1)	$V_{CE}=3V, I_C=10mA, f=1GHz$	16.5	19	21.5	dB
	$ S_{21e} ^2$ (2)	$V_{CE}=3V, I_C=10mA, f=2GHz$	11.5	13.5	16.5	
Noise Figure	NF (1)	$V_{CE}=3V, I_C=3mA, f=1GHz$	-	1.0	1.4	dB
	NF (2)	$V_{CE}=3V, I_C=3mA, f=2GHz$	-	1.4	1.8	

Note 1 : Cre is measured by 3 terminal method with capacitance bridge.

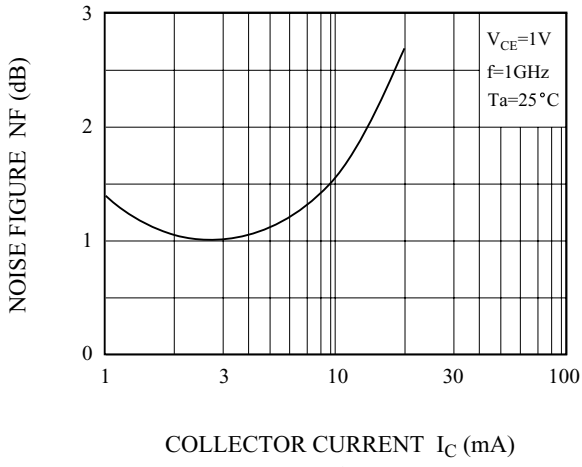
Note 2 : This device electrostatic sensitivity. Please handle with caution.

# KTC3660U

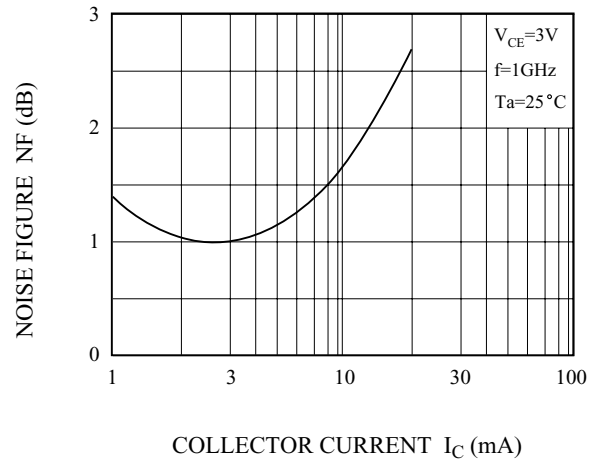


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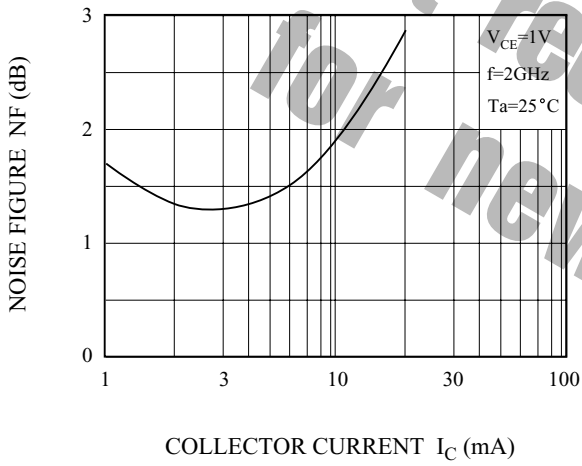
NF -  $I_C$



NF -  $I_C$



NF -  $I_C$



NF -  $I_C$

