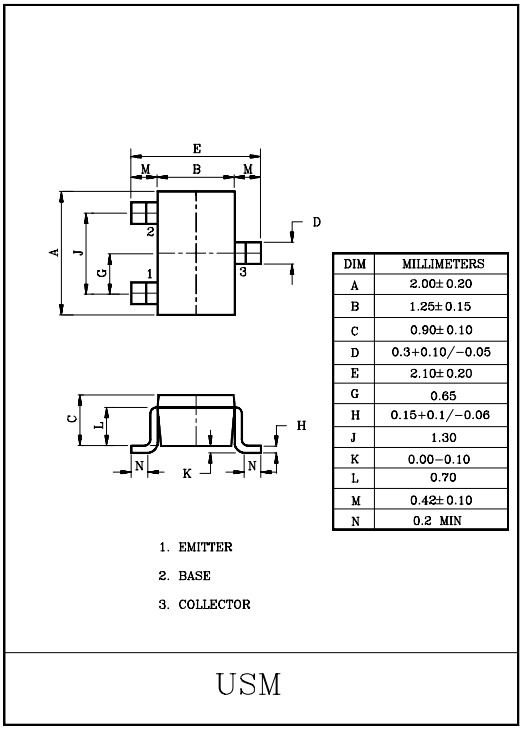
KTC4082

EPITAXIAL PLANAR NPN TRANSISTOR

HIGH FREQUENCY APPLICATION.
TV TUNER, VHF OSCILLATOR APPLICATION.

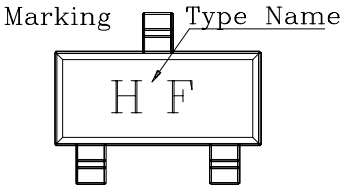


DIM	MILLIMETERS
A	2.00±0.20
B	1.25±0.15
C	0.90±0.10
D	0.3+0.10/−0.05
E	2.10±0.20
G	0.65
H	0.15+0.1/−0.06
J	1.30
K	0.00−0.10
L	0.70
M	0.42±0.10
N	0.2 MIN

USM

MAXIMUM RATINGS (Ta=25℃)

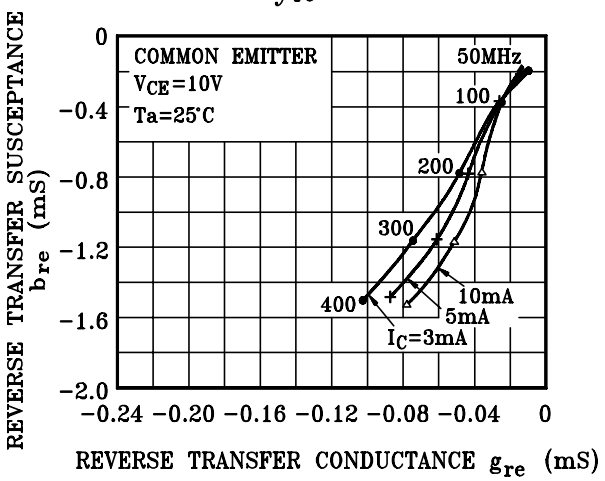
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	3	V
Collector Current	I_C	50	mA
Base Current	I_B	25	mA
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~150	℃



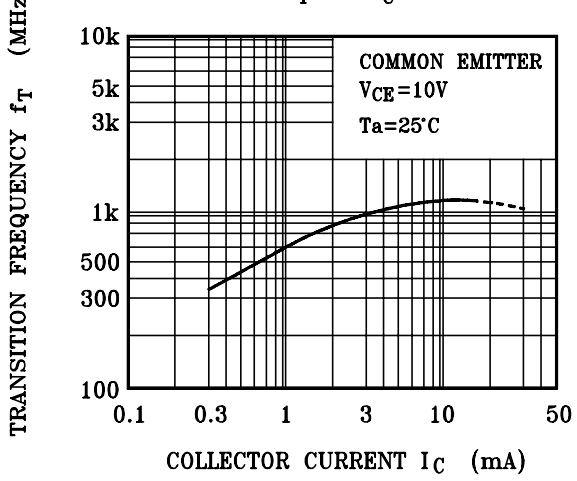
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=15V, I_E=0	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=3V, I_C=0	-	-	1.0	nA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	15	-	-	V
DC Current Gain	h_{FE}	V_{CE}=3V, I_C=8mA	40	100	200	
Transition Frequency	f_T	V_{CE}=10V, I_C=8mA	650	1100	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	0.9	1.3	pF
Collector-Base Time Constant	$C_c \cdot r_{bb}'$	V_{CB}=10V, I_C=8mA, f=30MHz	-	7.0	12	pS

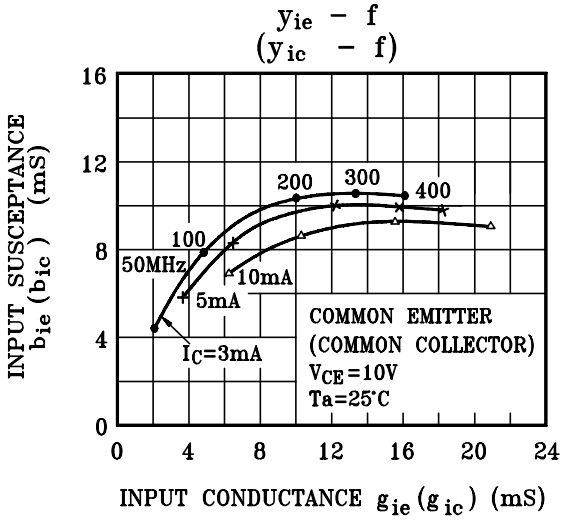
y_{re} – f



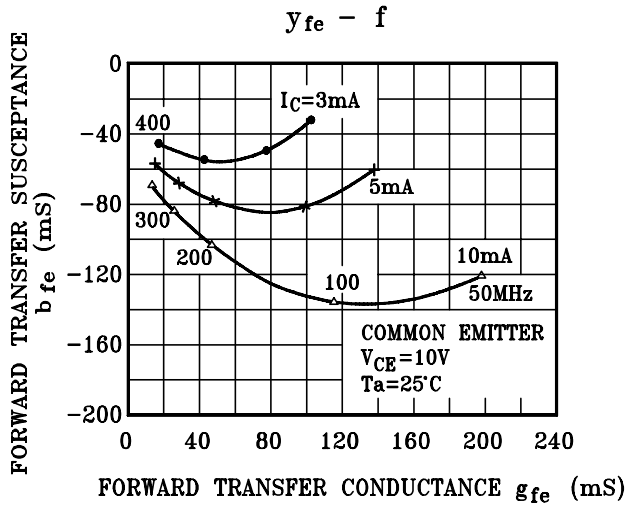
f_T – I_C



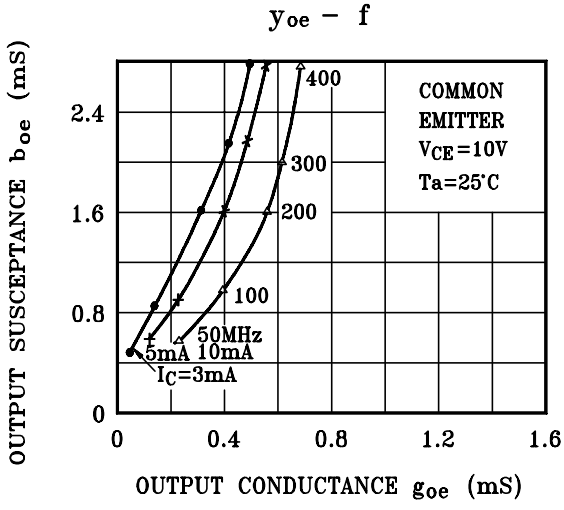
y_{ie} – f
(y_{ic} – f)



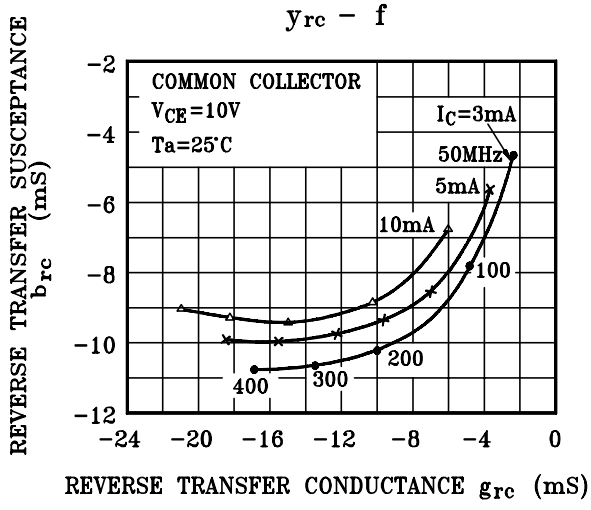
y_{fe} – f

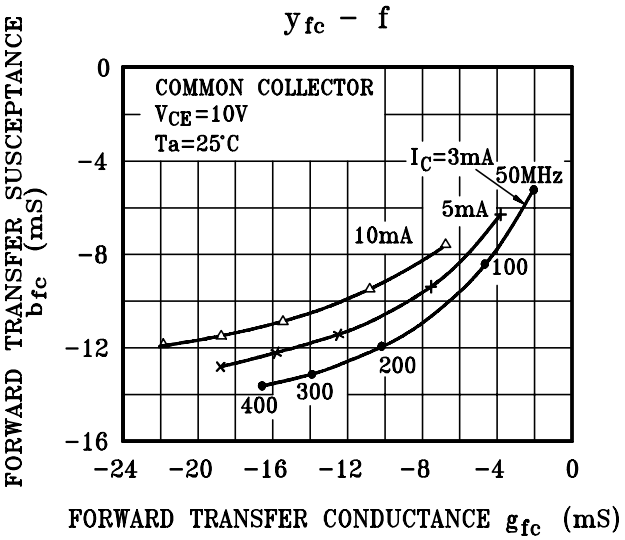


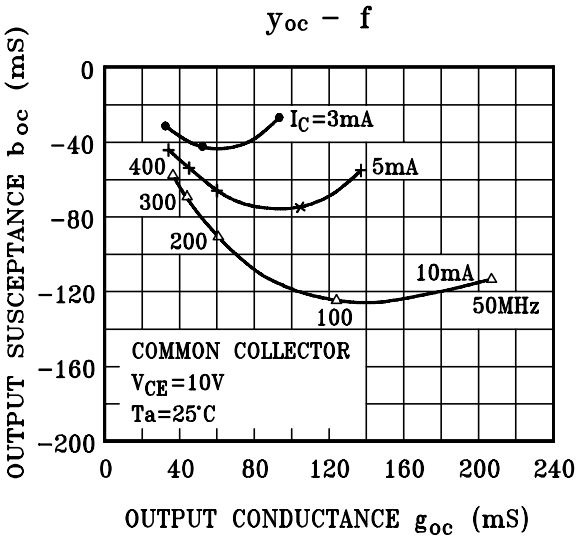
y_{oe} – f



y_{rc} – f




y_{fc} – f
COMMON COLLECTOR
V_{CE}=10V
Ta=25°C
I_C=3mA
50MHz
5mA
10mA
100
200
300
400
0
-4
-8
-12
-16
-24
-20
-16
-12
-8
-4
0
FORWARD TRANSFER SUSCEPTANCE b_{fc} (mS)
FORWARD TRANSFER CONDUCTANCE g_{fc} (mS)


y_{oc} – f
I_C=3mA
400
5mA
300
200
10mA
50MHz
100
COMMON COLLECTOR
V_{CE}=10V
Ta=25°C
0
-40
-80
-120
-160
-200
0
40
80
120
160
200
240
OUTPUT SUSCEPTANCE b_{oc} (mS)
OUTPUT CONDUCTANCE g_{oc} (mS)