查询KTC3121供应商 捷多邦，专业PCB打样工厂，24小时加急出货

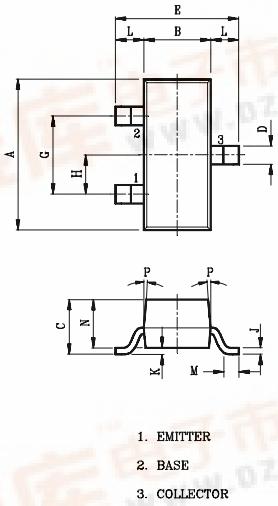
KEL
KOREA ELECTRONICS CO.,LTD.

SEMICONDUCTOR
TECHNICAL DATA

KTC3121
EPITAXIAL PLANAR NPN TRANSISTOR

TV TUNER, UHF OSCILLATOR APPLICATION.(COMMON BASE)
TV TUNER, UHF CONVERTER APPLICATION.(COMMON BASE)

FEATURES
- High Transition Frequency : f_T=1500MHz (Typ.).
- Excellent h_{FE} Linearity.



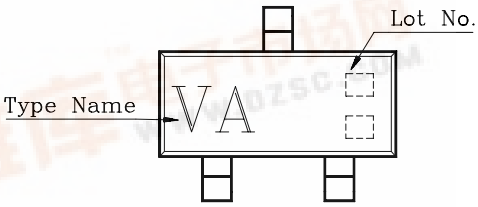
DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/−0.15
C	1.30 MAX
D	0.45+0.15/−0.05
E	2.40+0.30/−0.20
G	1.90
H	0.95
J	0.13+0.10/−0.05
K	0.00 − 0.10
L	0.55
M	0.20 MIN
N	1.00+0.20/−0.10
P	7°

SOT−23

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
Base Current	I_B	25	mA
Collector Current	I_C	50	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

Marking



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	μA
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	60	150	320	
Transition Frequency	f_T	V_{CE}=10V, I_C=8mA	1100	1500	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V, I_E=2mA, f=1MHz	-	0.9	1.3	pF
Collector-Base Time Constant	C_C·rbb′	V_{CB}=10V, I_C=8mA, f=30MHz	-	7.0	12	pS

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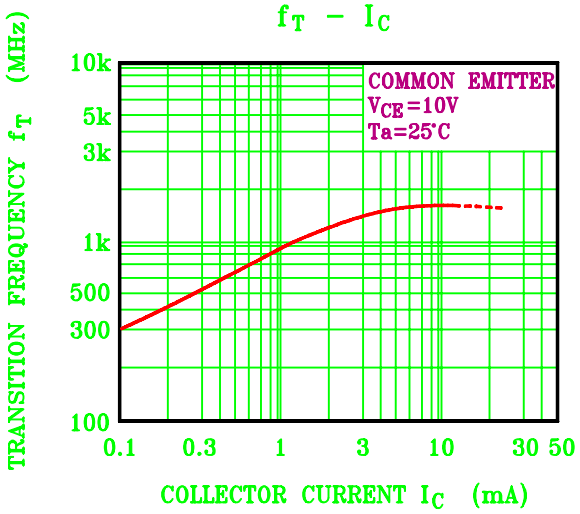
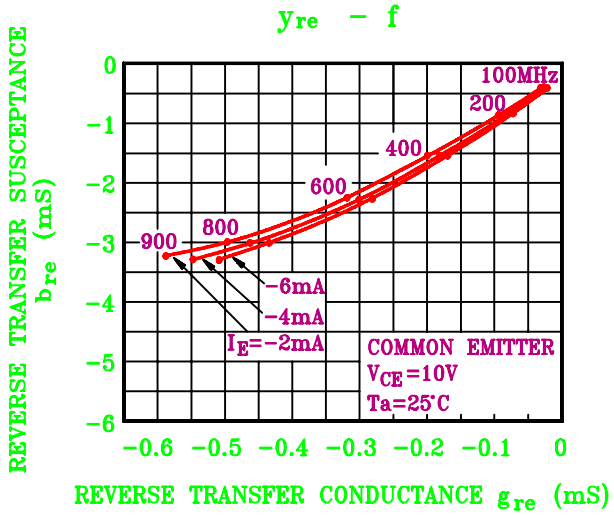
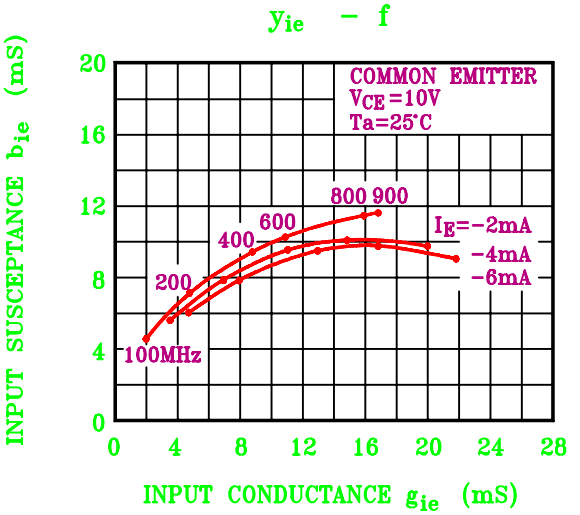
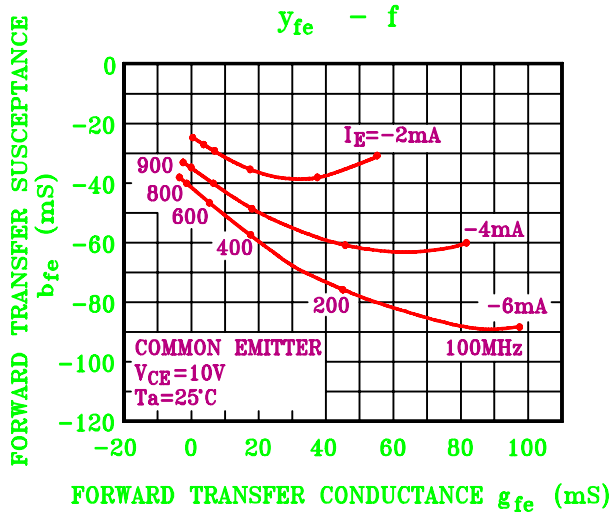
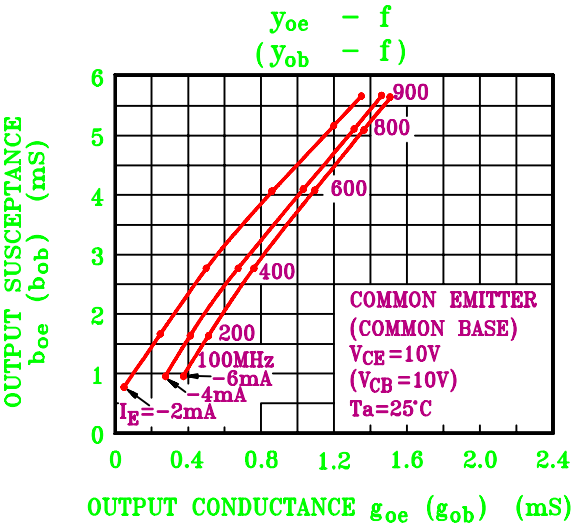
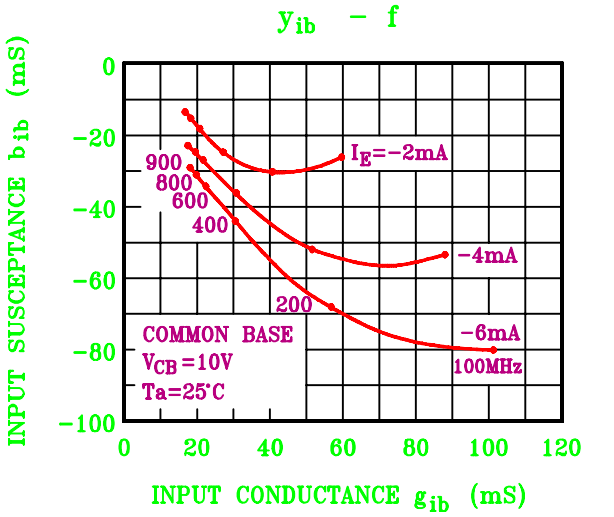

fT – IC
TRANSITION FREQUENCY fT (MHz)
10k
5k
3k
1k
500
300
100
0.1
0.3
1
3
10
30 50
COLLECTOR CURRENT IC (mA)
COMMON EMITTER
VCE=10V
Ta=25°C

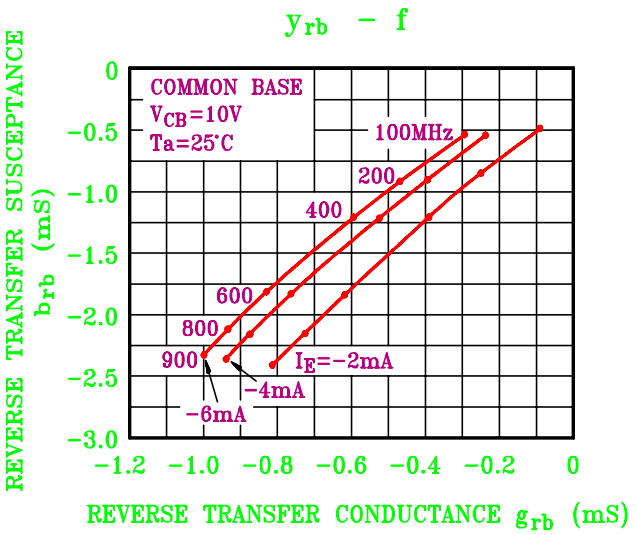

yre – f
REVERSE TRANSFER SUSCEPTANCE bre (mS)
0
−1
−2
−3
−4
−5
−6
−0.6
−0.5
−0.4
−0.3
−0.2
−0.1
0
REVERSE TRANSFER CONDUCTANCE gre (mS)
100MHz
200
400
600
800
900
−6mA
−4mA
IE=−2mA
COMMON EMITTER
VCE=10V
Ta=25°C

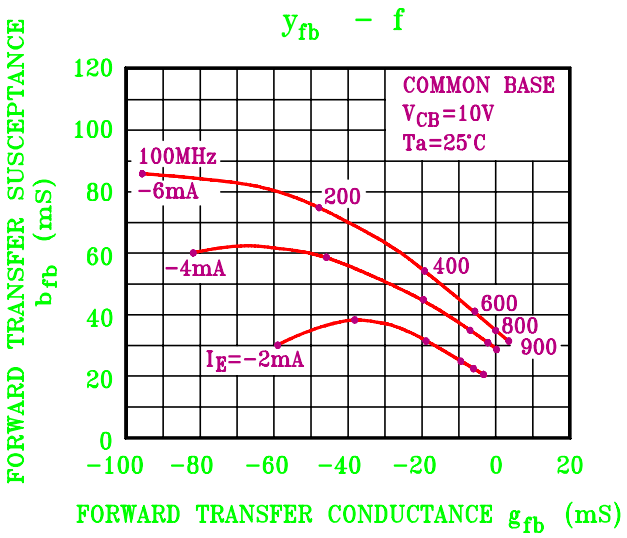

yie – f
INPUT SUSCEPTANCE bie (mS)
20
16
12
8
4
0
0
4
8
12
16
20
24
28
INPUT CONDUCTANCE gie (mS)
COMMON EMITTER
VCE=10V
Ta=25°C
800 900
600
400
200
100MHz
IE=−2mA
−4mA
−6mA


yfe – f
FORWARD TRANSFER SUSCEPTANCE bfe (mS)
0
−20
−40
−60
−80
−100
−120
−20
0
20
40
60
80
100
FORWARD TRANSFER CONDUCTANCE gfe (mS)
IE=−2mA
900
800
600
400
200
100MHz
−4mA
−6mA
COMMON EMITTER
VCE=10V
Ta=25°C


yoe – f
(yob – f)
OUTPUT SUSCEPTANCE boe (bob) (mS)
6
5
4
3
2
1
0
0
0.4
0.8
1.2
1.6
2.0
2.4
OUTPUT CONDUCTANCE goe (gob) (mS)
900
800
600
400
200
100MHz
−6mA
−4mA
IE=−2mA
COMMON EMITTER
(COMMON BASE)
VCE=10V
(VCB=10V)
Ta=25°C


yib – f
INPUT SUSCEPTANCE bib (mS)
0
−20
−40
−60
−80
−100
0
20
40
60
80
100
120
INPUT CONDUCTANCE gib (mS)
IE=−2mA
900
800
600
400
200
100MHz
−4mA
−6mA
COMMON BASE
VCB=10V
Ta=25°C


yrb – f
COMMON BASE
VCB=10V
Ta=25°C
100MHz
200
400
600
800
900
IE=−2mA
−4mA
−6mA
0
−0.5
−1.0
−1.5
−2.0
−2.5
−3.0
−1.2
−1.0
−0.8
−0.6
−0.4
−0.2
0
REVERSE TRANSFER SUSCEPTANCE brb (mS)
REVERSE TRANSFER CONDUCTANCE grb (mS)


yfb – f
COMMON BASE
VCB=10V
Ta=25°C
100MHz
−6mA
200
−4mA
400
600
800
900
IE=−2mA
120
100
80
60
40
20
0
−100
−80
−60
−40
−20
0
20
FORWARD TRANSFER SUSCEPTANCE bfb (mS)
FORWARD TRANSFER CONDUCTANCE gfb (mS)