查询KTK211供应商 捷多邦，专业PCB打样工厂，24小时加急出货

KEC

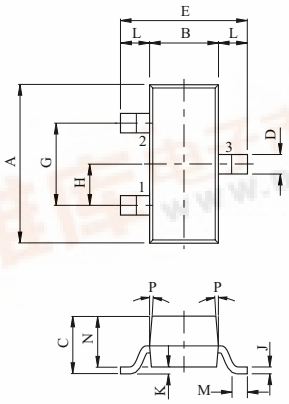
SEMICONDUCTOR
TECHNICAL DATA

KTK211
N CHANNEL JUNCTION FIELD EFFECT TRANSISTOR

HIGH FREQUENCY APPLICATION.
VHF BAND AMPLIFIER APPLICATION.

FEATURES

· Low Noise Figure : NF=2.5dB(Typ.) (f=100MHz).
· High Forward Transfer Admittance.
  : $|y_{fs}|$ =9mS(Typ.)
· Extremely Low Reverse Transfer Capacitance.
  : C_{rss}=0.1pF(Typ.)



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 °

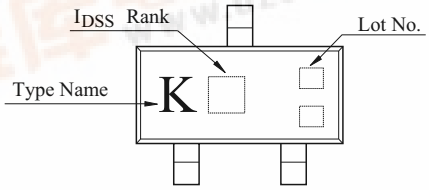
1. GATE
2. DRAIN
3. SOURCE

SOT-23

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Gate-Drain Voltage	V_{GDO}	-18	V
Gate Current	I_G	10	mA
Drain Power Dissipation	P_D	150	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 ~ 150	℃

Marking



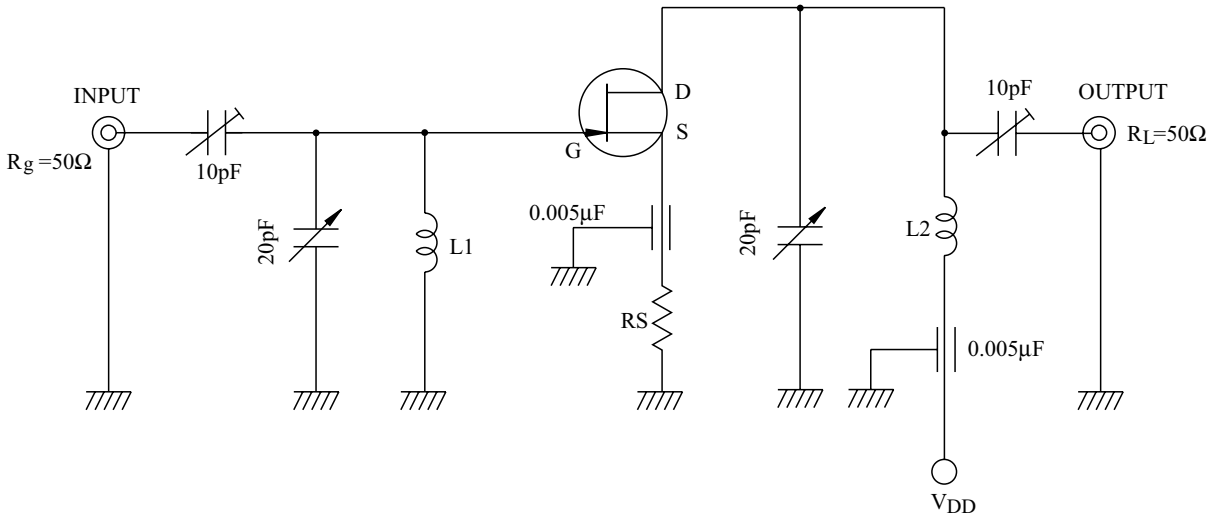
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I_{GSS}	V_{GS}=-0.5V, V_{DS}=0	-	-	-10	nA
Gate-Drain Breakdown Voltage	$V_{(BR)GDO}$	I_G=-100 μA	-18	-	-	V
Drain Current	I_{DSS} (Note)	V_{GS}=0, V_{DS}=10V	1.0	-	15	mA
Gate-Source Cut-off Voltage	$V_{GS(OFF)}$	V_{DS}=10V, I_D=1 μA	-0.4	-	-4.0	V
Foward Transfer Admittance	$\|y_{fs}\|$	V_{DS}=10V, V_{GS}=0, f=1kHz	-	9	-	mS
Reverse Transfer Capacitance	C_{rss}	V_{GD}=-10V, f=1MHz	-	0.10	0.15	pF
Power Gain	G_{PS}	V_{DD}=10V, f=100MHz (Fig.)	-	18	-	dB
Noise Figure	NF	V_{DD}=10V, f=100MHz (Fig.)	-	2.5	3.5	dB

Note : I_{DSS} Classification O:1.0 ~ 3.0, Y:2.5 ~ 6.0,
GR(G):5.0 ~ 10.0, BL(B):9.0 ~ 15.0

pdf.dzsc.com

Fig. 100MHz G_{PS}, NF TEST CIRCUIT

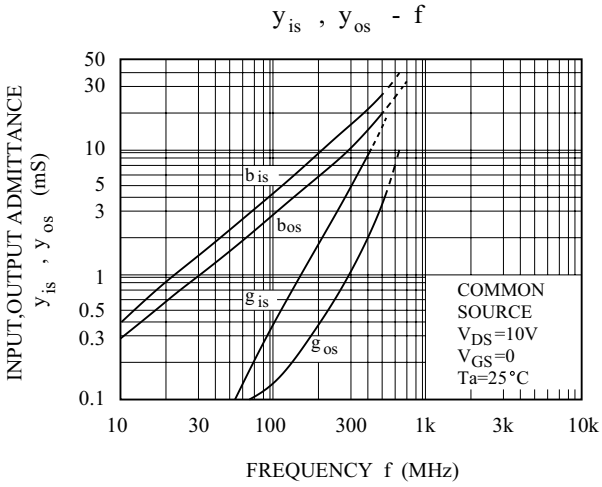


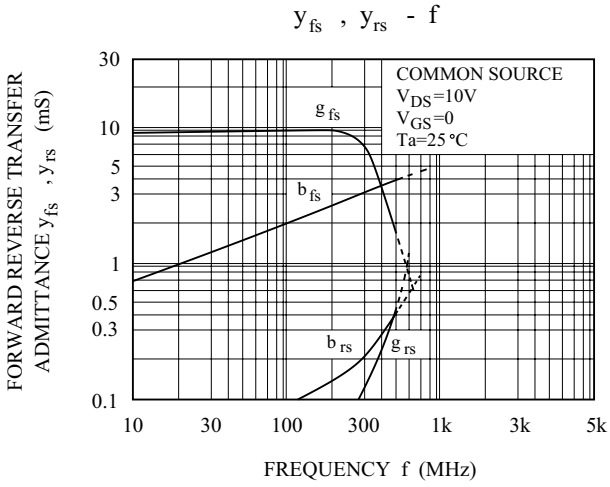
L1 : 0.8mmΦ Ag PLATED Cu WIRE , 3 TURNS , 10mm ID , 10mm LENGTH.
L1 : 0.8mmΦ Ag PLATED Cu WIRE , 3.5 TURNS , 10mm ID , 10mm LENGTH.

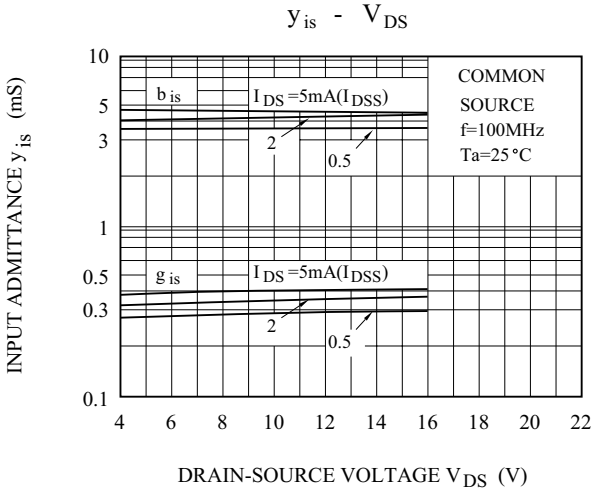
KTK211 is measured at each group by changing R_S.

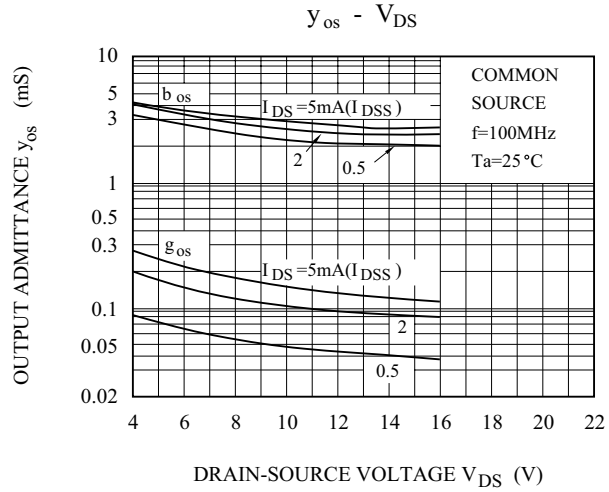
GROUP	R_S(Ω)
KTK211 - O	0
KTK211 - Y	18 Ω ±5%
KTK211 - GR	100 Ω ±5%
KTK211 - BL	200 Ω ±5%

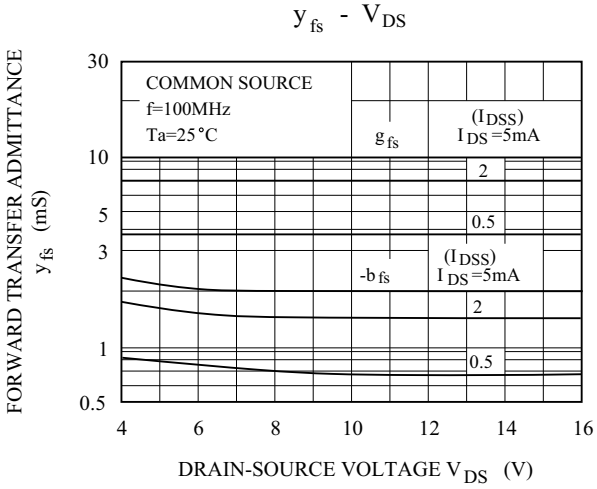
KTK211


y_{is} , y_{os} - f
INPUT,OUTPUT ADMITTANCE y_{is} , y_{os} (mS)
50
30
10
5
3
1
0.5
0.3
0.1
b_{is}
b_{os}
g_{is}
g_{os}
COMMON SOURCE
V_{DS}=10V
V_{GS}=0
Ta=25°C
10
30
100
300
1k
3k
10k
FREQUENCY f (MHz)


y_{fs} , y_{rs} - f
FORWARD REVERSE TRANSFER ADMITTANCE y_{fs} , y_{rs} (mS)
30
10
5
3
1
0.5
0.3
0.1
g_{fs}
b_{fs}
b_{rs}
g_{rs}
COMMON SOURCE
V_{DS}=10V
V_{GS}=0
Ta=25°C
10
30
100
300
1k
3k
5k
FREQUENCY f (MHz)


y_{is} - V_{DS}
INPUT ADMITTANCE y_{is} (mS)
10
5
3
1
0.5
0.3
0.1
b_{is}
I_{DS}=5mA(I_{DSS})
2
0.5
g_{is}
I_{DS}=5mA(I_{DSS})
2
0.5
COMMON SOURCE
f=100MHz
Ta=25°C
4
6
8
10
12
14
16
18
20
22
DRAIN-SOURCE VOLTAGE V_{DS} (V)


y_{os} - V_{DS}
OUTPUT ADMITTANCE y_{os} (mS)
10
5
3
1
0.5
0.3
0.1
0.05
0.02
b_{os}
I_{DS}=5mA(I_{DSS})
2
0.5
g_{os}
I_{DS}=5mA(I_{DSS})
2
0.5
COMMON SOURCE
f=100MHz
Ta=25°C
4
6
8
10
12
14
16
18
20
22
DRAIN-SOURCE VOLTAGE V_{DS} (V)


y_{fs} - V_{DS}
FORWARD TRANSFER ADMITTANCE y_{fs} (mS)
30
10
5
3
1
0.5
COMMON SOURCE
f=100MHz
Ta=25°C
g_{fs}
(I_{DSS})
I_{DS}=5mA
2
0.5
$-b_{fs}$
(I_{DSS})
I_{DS}=5mA
2
0.5
4
6
8
10
12
14
16
DRAIN-SOURCE VOLTAGE V_{DS} (V)