



**FUKUCOM COMPANY LTD.**

**福 靈 有 限 公 司**

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

**KEC**

**SEMICONDUCTOR  
TECHNICAL DATA**

**KTK161**

**N CHANNEL JUNCTION FIELD  
EFFECT TRANSISTOR**

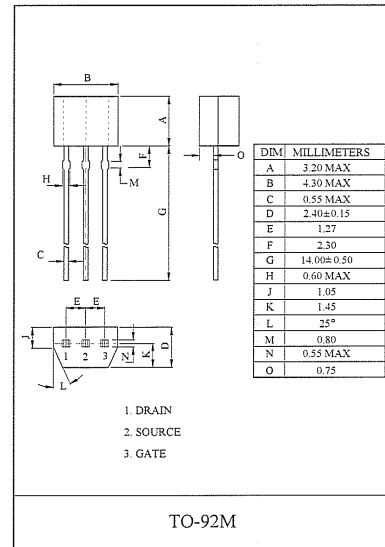
HIGH FREQUENCY APPLICATION.  
VHF BAND AMPLIFIER APPLICATION.

**FEATURES**

- Low Noise Figure.  
: NF=2.5dB(Typ.) (f=100MHz).
- High Forward Transfer Admittance.  
: |y<sub>fs</sub>|= 9mS(Typ.).
- Extremely Low Reverse Transfer Capacitance.  
: C<sub>rss</sub>=0.1pF(Typ.)

**MAXIMUM RATINGS (Ta=25°C)**

CHARACTERISTIC	SYMBOL	RATING	UNIT
Gate-Drain Voltage	V <sub>GDO</sub>	-18	V
Gate-Current	I <sub>G</sub>	10	mA
Drain Power Dissipation	P <sub>D</sub>	400	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 ~ 150	°C



**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> =-0.5V, V <sub>DS</sub> =0	-	-	-10	nA
Gate-Drain Breakdown Voltage	V <sub>(BR)GDO</sub>	I <sub>G</sub> =-100μA	-18	-	-	V
Drain Current	I <sub>DSS</sub> (Note)	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V	1.0	-	15.0	mA
Gate-Source Cut-off Voltage	V <sub>GS(OFF)</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =1μA	-0.4	-	-4.0	V
Forward Transfer Admittance	y <sub>fs</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0, f=1kHz	-	9.0	-	mS
Reverse Transfer Capacitance	C <sub>rss</sub>	V <sub>GD</sub> =-10V, f=1MHz	-	0.10	0.15	pF
Power Gain	G <sub>ps</sub>	V <sub>DD</sub> =10V, f=100MHz (Fig.)	-	18	-	dB
Noise Figure	NF	V <sub>DD</sub> =10V, f=100MHz (Fig.)	-	2.5	3.5	dB

Note : I<sub>DSS</sub> Classification O:1.0~3.0, Y:2.5~6.0, GR:5.0~10.0, BL:9.0~15.0



**FUKUCOM COMPANY LTD.**

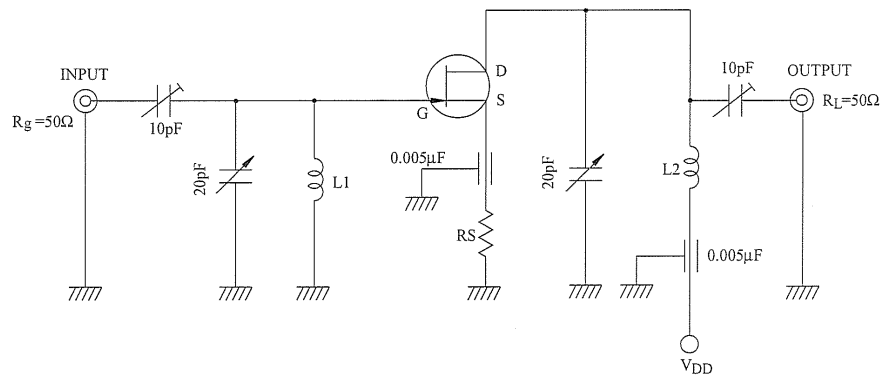
**福 靈 有 限 公 司**

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

## KTK161

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



L1: 0.8mm $\Phi$  Ag PLATED Cu WIRE, 3 TURNS, 10mm ID, 10mm LENGTH.

L2: 0.8mm $\Phi$  Ag PLATED Cu WIRE, 3.5 TURNS, 10mm ID, 10mm LENGTH.

KTK161 is measured at each group by changing  $R_S$ .

Group	$R_S(\Omega)$
KTK161-O	0
KTK161-Y	$18\Omega \pm 5\%$
KTK161-GR	$100\Omega \pm 5\%$
KTK161-BL	$200\Omega \pm 5\%$



**FUKUCOM COMPANY LTD.**

**福 靈 有 限 公 司**

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

**KTK161**

