

3SK160

SILICON N CHANNEL DUAL GATE MOS TYPE FIELD EFFECT TRANSISTOR

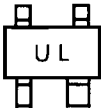
TV TUNER, VHF RF AMPLIFIER APPLICATIONS.
TV TUNER VHF MIXER APPLICATIONS.

- Superior Cross Modulation Performance.
- Low Noise Figure : NF=2.1dB(Typ.)

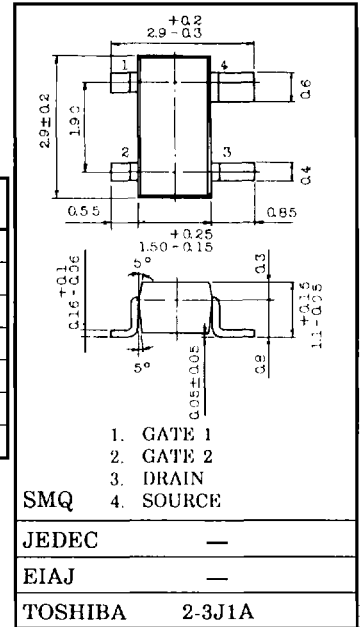
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V _{DS}	13.5	V
Gate 1-Source Voltage	V _{G1S}	±8	V
Gate 2-Source Voltage	V _{G2S}	±8	V
Drain Current	I _D	30	mA
Drain Power Dissipation	P _D	150	mW
Channel Temperature	T _{ch}	125	°C
Storage Temperature Range	T _{stg}	-55~125	°C

Marking



Unit in mm

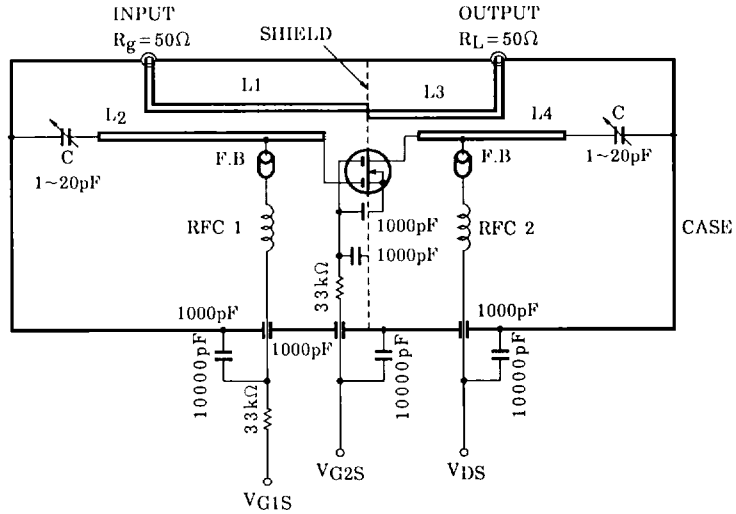


Weight : 0.013g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate 1 Leakage Current	I _{G1SS}	V _{DS} =0, V _{G1S} =±6V, V _{G2S} =0	—	—	±50	nA
Gate 2 Leakage Current	I _{G2SS}	V _{DS} =0, V _{G1S} =0, V _{G2S} =±6V	—	—	±50	nA
Drain-Source Voltage	V (BR) DSX	V _{G1S} =-4V, V _{G2S} =-4V, I _D =100μA	13.5	—	—	V
Drain Current	I _{DSS} (Note)	V _{DS} =6V, V _{G1S} =0, V _{G2S} =3V	0	—	2	mA
Gate 1-Source Cut-off Voltage	V _{G1S} (OFF)	V _{DS} =6V, V _{G2S} =3V, I _D =100μA	-1.5	—	1	V
Gate 2-Source Cut-off Voltage	V _{G2S} (OFF)	V _{DS} =6V, V _{G1S} =3V, I _D =100μA	-1.0	—	1	V
Forward Transfer Admittance	Y _{fs}	V _{DS} =6V, V _{G2S} =3V, I _D =10mA, f=1kHz	—	18	—	mS
Input Capacitance	C _{iss}	V _{DS} =6V, V _{G2S} =3V, I _D =10mA, f=1MHz	—	3.4	4.4	pF
Reverse Transfer Capacitance	C _{rss}	I _D =10mA, f=1MHz	—	0.035	0.05	pF
Power Gain	G _{ps}	V _{DS} =6V, V _{G2S} =3V, I _D =10mA, f=500MHz (Fig.1)	14.5	18	—	dB
Noise Figure	NF	I _D =10mA, f=500MHz (Fig.1)	—	2.1	3.5	dB

Note : I_{DSS} Classification 0 : 0~2mA



L1~L4 : ϕ 0.8mm SILVER PLATED COPPER WIRE
 C : AIR TRIMMER TTA25A200A (MURATA MFG. Co., LTD.)
 RFC 1 : ϕ 0.35mm COPPER WIRE 3mm ID, 7T
 RFC 2 : ϕ 0.35mm COPPER WIRE 3mm ID, 10T

Fig.1 500MHz Gps, NF TEST CIRCUIT

