

TOSHIBA FIELD EFFECT TRANSISTOR SILICON N-CHANNEL MOS TYPE

2SK1771

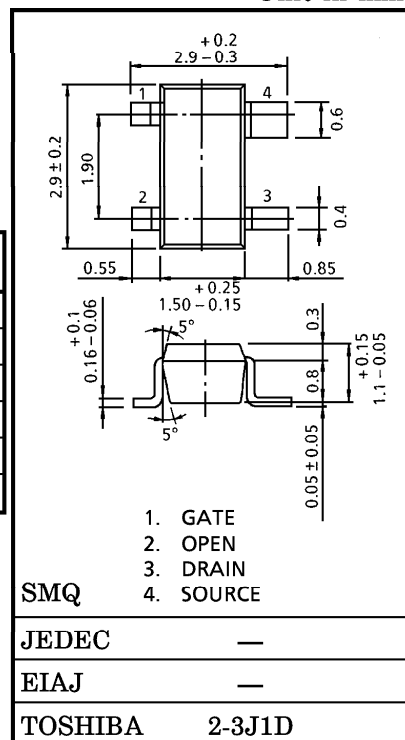
FM TUNER, VHF RF AMPLIFIER APPLICATIONS

Unit in mm

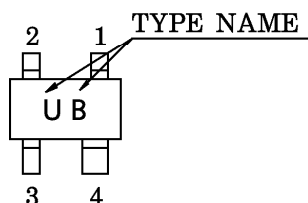
- Superior Inter Modulation Performance.
- Low Noise Figure : NF=1.0dB (Typ.)

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V _{DS}	12.5	V
Gate-Source Voltage	V _{GS}	±8	V
Drain Current	I _D	30	mA
Drain Power Dissipation	P _D	150	mW
Chanel Temperature	T _{ch}	125	°C
Storage Temperature Range	T _{stg}	-55~125	°C



Marking

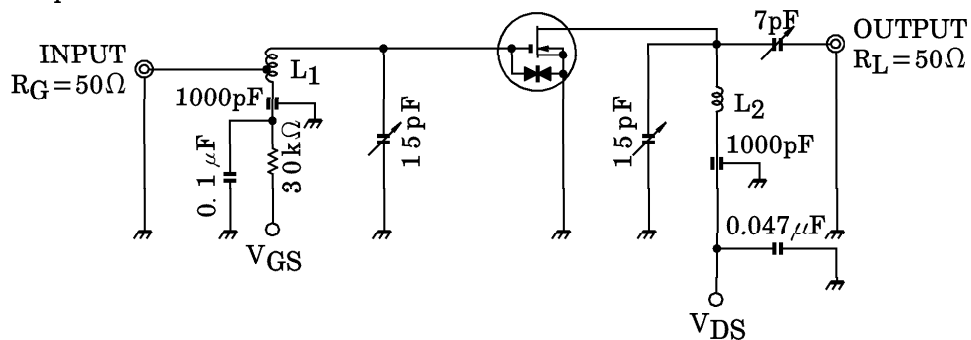


ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I _{GSS}	V _{DS} =0, V _{GS} =±6V	—	—	±50	nA
Drain-Source Voltage	V(BR)DSX	V _{GS} =-4V, I _D =100μA	12.5	—	—	V
Drain Current	I _{DSS}	V _{DS} =8V, V _{GS} =0	0	—	0.1	mA
Gate-Source Cut-off Voltage	V _{GS} (OFF)	V _{DS} =8V, I _D =100μA	0.5	1.0	1.5	V
Forward Transfer Admittance	Y _{fs}	V _{DS} =8V, I _D =10mA, f=1kHz	—	15	20	mS
Input Capacitance	C _{iss}	V _{DS} =8V, I _D =10mA, f=1MHz	2.9	3.5	4.1	pF
Reverse Transfer Capacitance	C _{rss}		—	0.3	0.8	
Power Gain	G _{ps}	V _{DS} =8V, I _D =10mA, f=100MHz	18	23	28	dB
Noise Figure	NF		—	1.0	2.2	

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Fig.1 100MHz G_{ps} , NF Test Circuit

- L₁ : 1.0mm ϕ SILVER PLATED COPPER WIRE
 4.0T, 8mm ϕ ID
 TAP at 1.0T FROM COIL END
 L₂ : 1.0mm ϕ SILVER PLATED COPPER WIRE
 3.0T, 8mm ϕ ID, 10mm LENGTH

