

SILICON N CHANNEL DEPLETION DUAL INSULATED GATE MOS TYPE

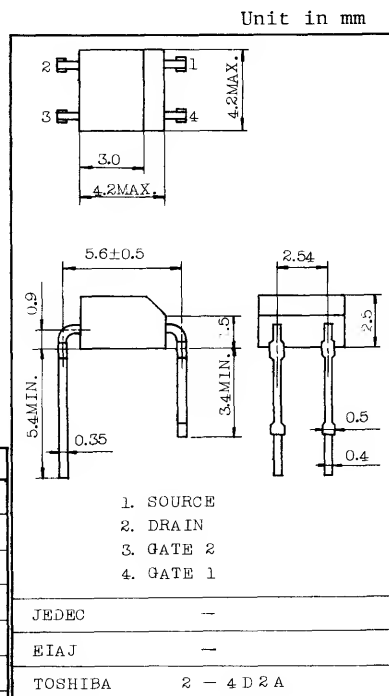
FM TUNER, VHF AMPLIFIER APPLICATIONS.

FEATURES :

- Wide AGC Range and Few Changes of Response
- Extremely Low Reverse Transfer Capacitance
: $C_{rss}=0.03\text{pF}$ (Typ.)
- Low Noise Figure
: $NF=2.2\text{dB}$ (Typ.) ($f=100\text{MHz}$)
- Possibility Low Operation Voltage.
- Superior Cross Modulation Performance.
- Contains Gate Protection Diodes.

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V_{DS}	20	V
Gate 1-Source Voltage	V_{G1S}	± 9	V
Gate 2-Source Voltage	V_{G2S}	± 9	V
Drain Current	I_D	30	mA
Drain Power Dissipation	P_D	300	mW
Channel Temperature	T_{ch}	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55 \sim 125$	$^\circ\text{C}$

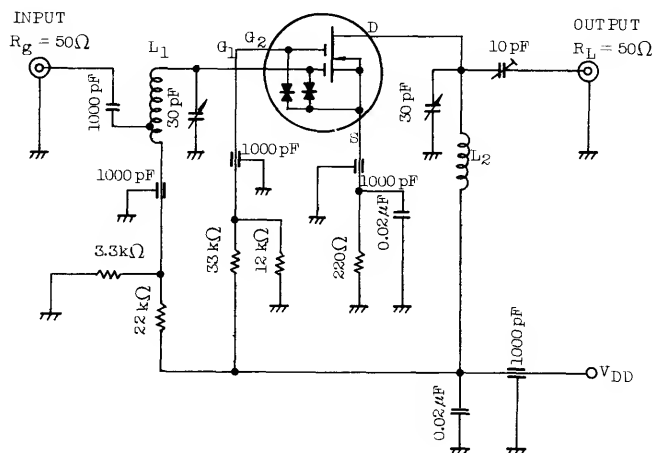


Weight : 0.13g

ELECTRICAL CHARACTERISTICS (COMMON SOURCE, $T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate 1 Cut-off Current	I_{C1SS}	$V_{DS}=0, V_{G1S}=\pm 7V, V_{G2S}=0$	-	-	± 50	nA
Gate 2 Cut-off Current	I_{G2SS}	$V_{DS}=0, V_{G1S}=0, V_{G2S}=\pm 7V$	-	-	± 50	nA
Drain-Source Voltage	V_{DSX}	$V_{G1S}=-4V, V_{G2S}=-4V, I_D=100\mu A$	20	-	-	V
Drain Current	I_{DSS} (Note)	$V_{DS}=15V, V_{G1S}=0, V_{G2S}=4V$	3	-	14	mA
Gate1-Source Cut-off Voltage	$V_{G1S(OFF)}$	$V_{DS}=15V, V_{G2S}=4V, I_D=100\mu A$	-	-	-2.5	V
Gate2-Source Cut-off Voltage	$V_{G2S(OFF)}$	$V_{DS}=15V, V_{G1S}=0, I_D=100\mu A$	-	-	-2.5	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=15V, V_{G2S}=4V, I_D=10mA, f=1kHz, G_1 \text{ INPUT}$	-	20	-	mS
Input Capacitance	C_{iss}	$V_{DS}=15V, V_{G2S}=4V, I_D=10mA, f=1MHz$	-	5.0	-	pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=15V, V_{G2S}=4V, I_D=10mA, f=1MHz$	-	0.03	0.05	pF
Power Gain	G_{ps}	$V_{DD}=15V, f=100MHz$ (Fig.)	20	25	-	dB
Noise Figure	NF	$V_{DD}=15V, f=100MHz$ (Fig.)	-	2.2	3.5	dB

Note : I_{DSS} Classification Y : 3~7, GR : 6~14

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

L_1 : 1.0mm $\varnothing$ SILVER PLATED COPPER WIRE
4.0T, 8 ID, TAPAT 1.0T FROM COLD END

L_2 : 1.0mm $\varnothing$ SILVER PLATED COPPER WIRE
3.0T, 8 ID, 10 LENGTH

