

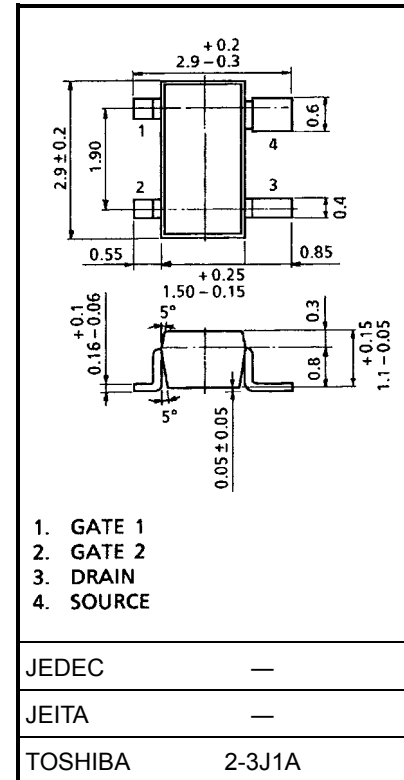
3SK240

TV Tuner, UHF RF Amplifier Applications

Unit: mm

Maximum Ratings (Ta = 25°C)

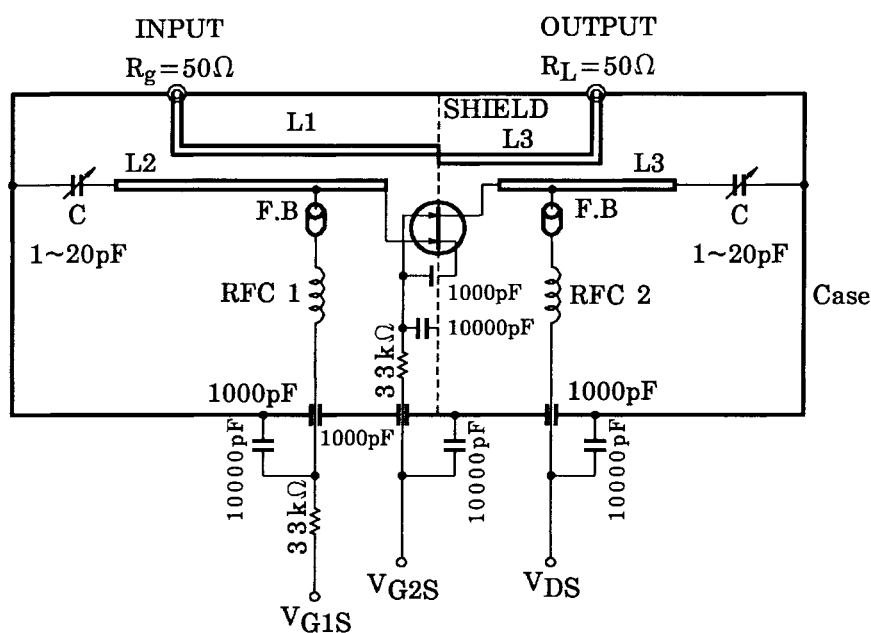
Characteristics	Symbol	Rating	Unit
Gate 1-drain voltage	V_{G1D0}	-9	V
Gate 2-drain voltage	V_{G2D0}	-9	V
Gate 1-source voltage	V_{G1S}	-4	V
Gate 2-source voltage	V_{G2S}	-4	V
Gate 1 current	I_{G1}	1	mA
Gate 2 current	I_{G2}	1	mA
Power dissipation	P_D	150	mW
Channel temperature	T_{ch}	125	°C
Storage temperature range	T_{stg}	-55~125	°C



Electrical Characteristics (Ta = 25°C)

Weight: 0.013 g (typ.)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Gate 1 leakage current	I_{G1SS}	$V_{DS} = 0, V_{G1S} = -3 \text{ V}, V_{G2S} = 0$	—	—	-4	μA
Gate 2 leakage current	I_{G2SS}	$V_{DS} = 0, V_{G1S} = 0, V_{G2S} = -3 \text{ V}$	—	—	-4	μA
Drain current	I_{DSS}	$V_{DS} = 3 \text{ V}, V_{G1S} = 0, V_{G2S} = 0$	6	—	20	mA
Gate 1-source cut-off voltage	$V_{G1S}(\text{OFF})$	$V_{DS} = 3 \text{ V}, V_{G2S} = 0, I_D = 100 \mu\text{A}$	-0.7	—	-1.8	V
Gate 2-source cut-off voltage	$V_{G2S}(\text{OFF})$	$V_{DS} = 3 \text{ V}, V_{G1S} = 0, I_D = 100 \mu\text{A}$	-0.7	—	-1.8	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 3 \text{ V}, V_{G2S} = 1 \text{ V}, I_D = 5 \text{ mA}$ $f = 1 \text{ kHz}$	—	19	—	mS
Input capacitance	C_{iss}	$V_{DS} = 3 \text{ V}, V_{G2S} = 1 \text{ V}, I_D = 5 \text{ mA}$ $f = 1 \text{ kHz}$	—	0.6	1.4	pF
Reverse transfer capacitance	C_{rss}		—	0.013	0.030	pF
Power gain	G_{ps}	$V_{DS} = 3 \text{ V}, V_{G2S} = 1 \text{ V}, I_D = 5 \text{ mA}$	17	20.5	—	dB
Noise figure	NF	$f = 800 \text{ MHz}$ (Figure 1)	—	1.0	2.0	dB



L1~L4: $\phi 1.0$ mm silver plated copper wire

C: Air trimmer TTA25A200A (MURATA Manufacturing. Co., Ltd.)

RFC 1: $\phi 0.35$ mm copper wire 3 mm ID, 7 T

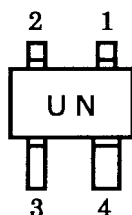
RFC 2: $\phi 0.35$ mm copper wire 3 mm ID, 10 T

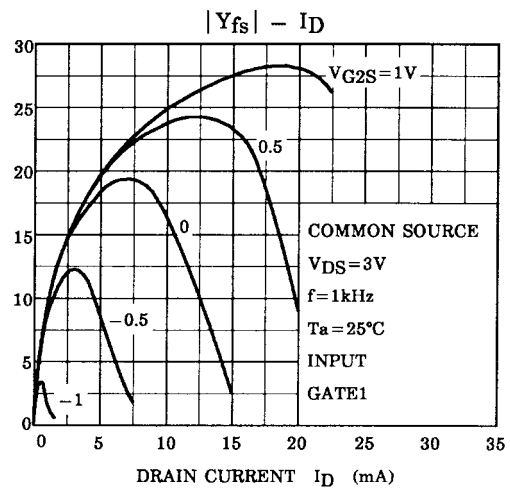
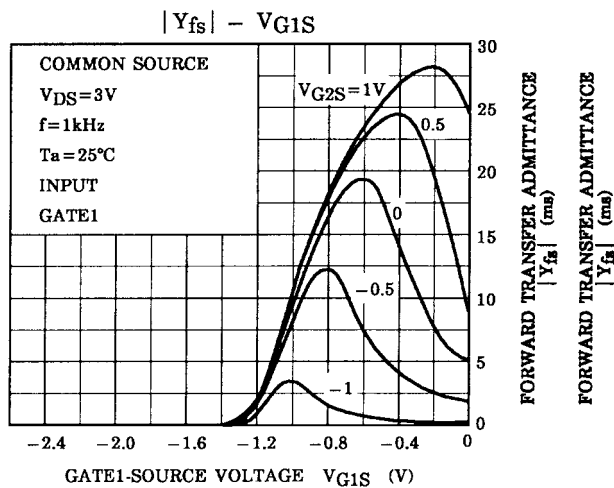
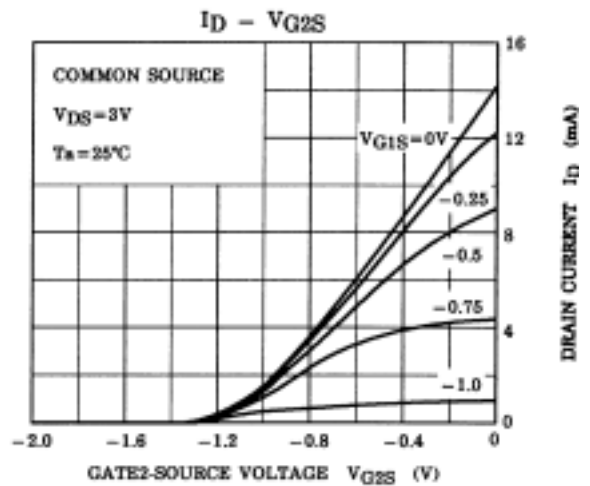
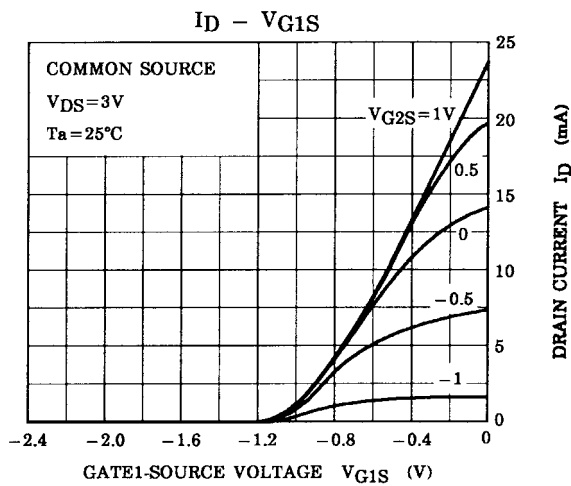
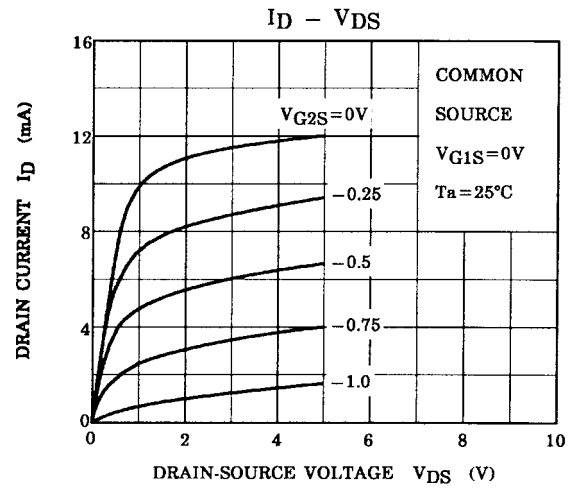
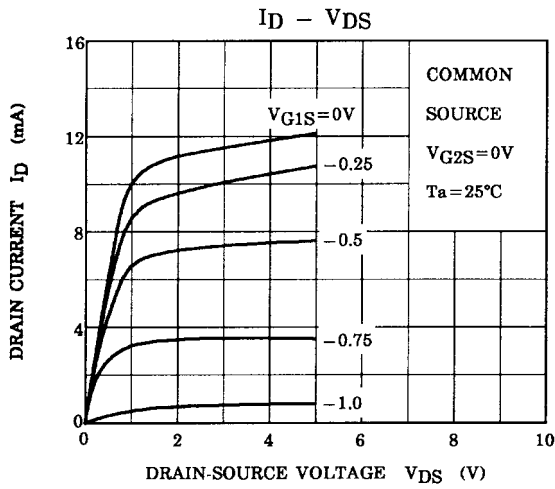
Figure 1 800 MHz G_{ps} , NF Test Circuit

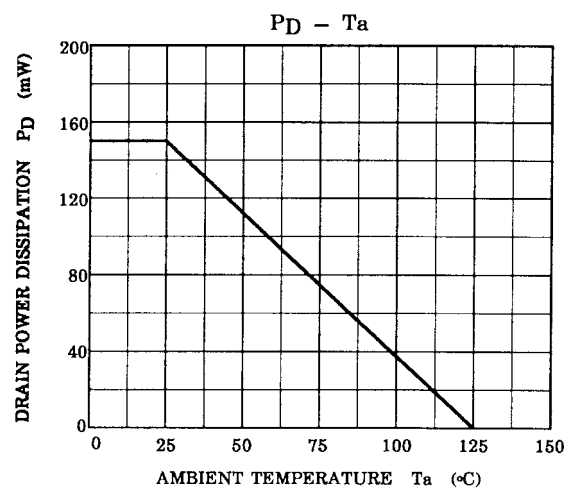
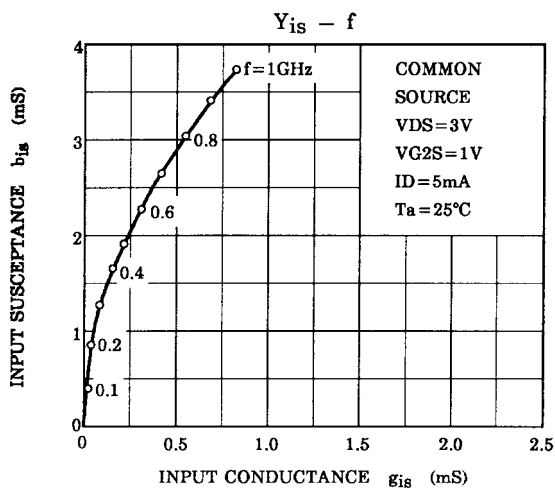
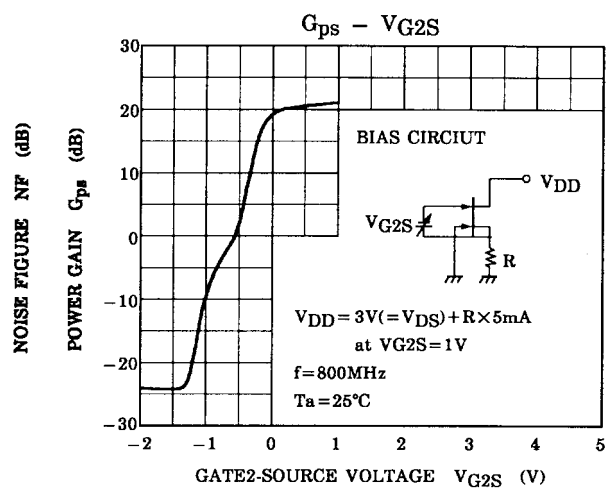
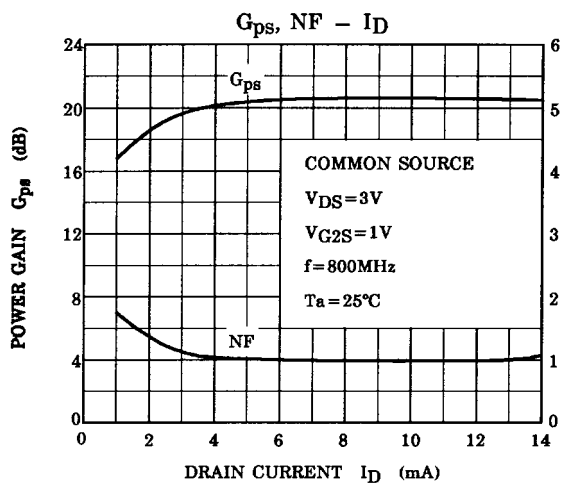
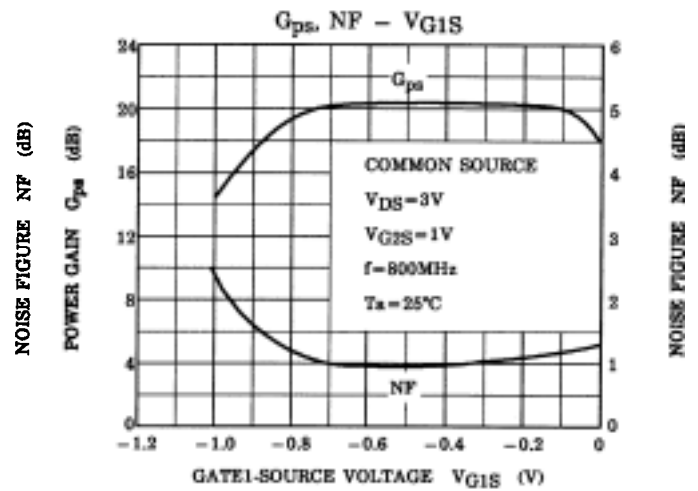
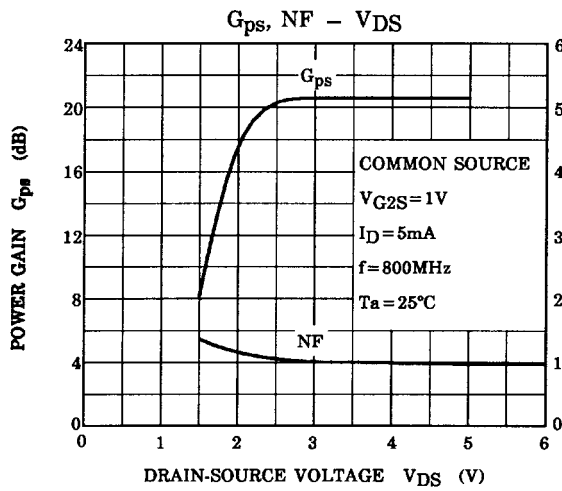
Caution

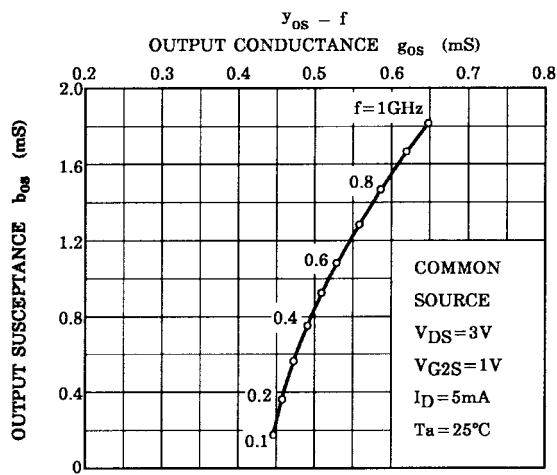
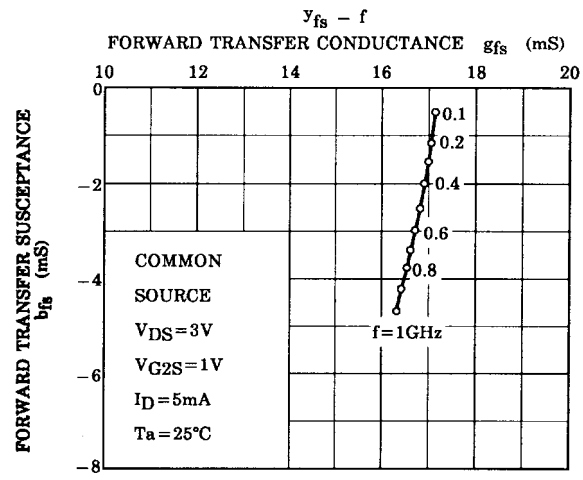
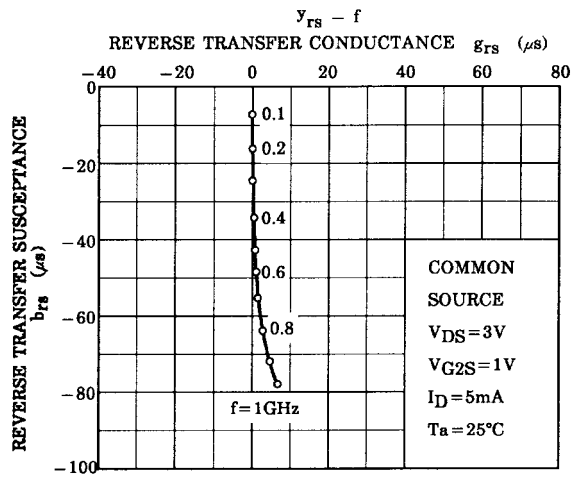
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Marking









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