

TOSHIBA MOS TYPE INTEGRATED CIRCUIT GaAs MONOLITHIC

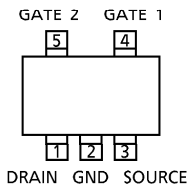
TG2000F

TV TUNER, UHF RF AMPLIFIER APPLICATIONS.

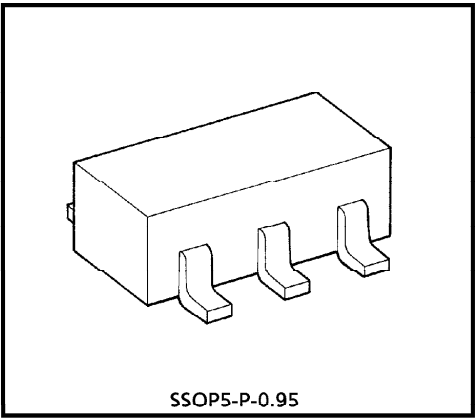
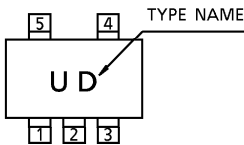
FEATURES

- On account of this Device build in Bias Circuit, Cut down number of articles.
- Low Noise Figure. : NF = 1.5dB (Typ.)
- Operating Voltage. : $V_{DD} = 4\sim 5V$

PIN ASSIGNMENT (TOP VIEW)



MARKING



SSOP5-P-0.95

Weight : 0.014g (Typ.)

MAXIMUM RATING (Ta = 25°C)

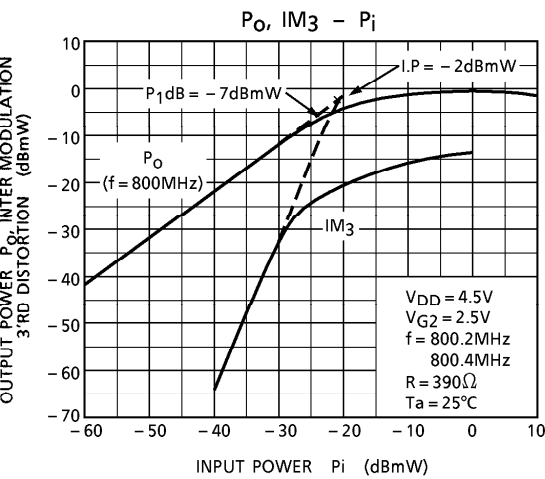
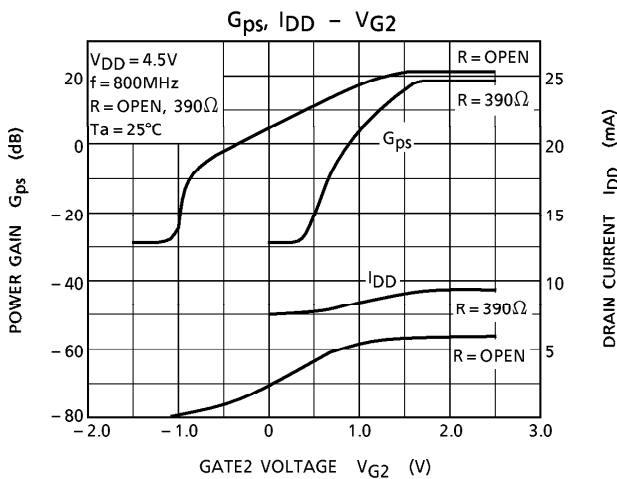
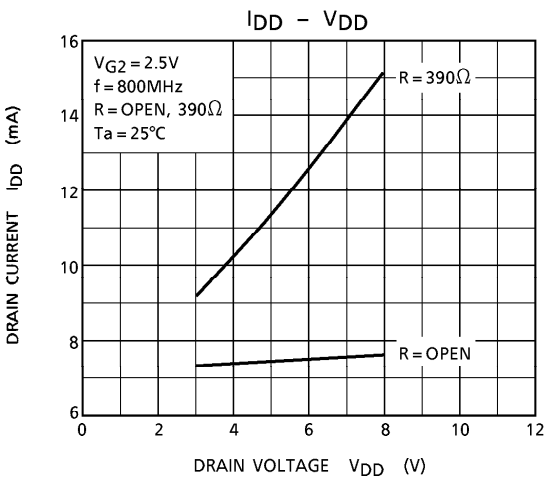
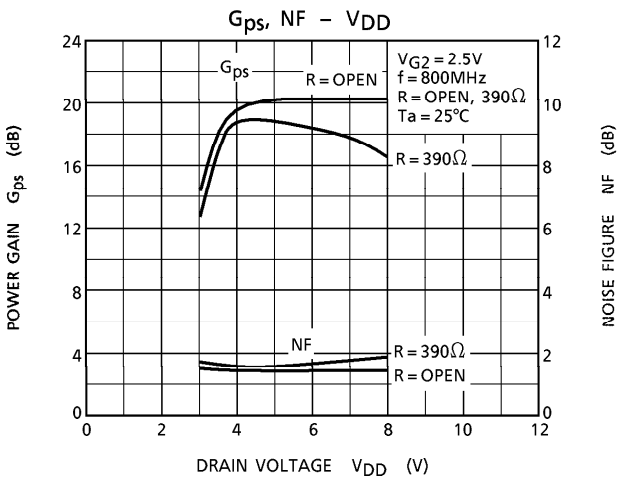
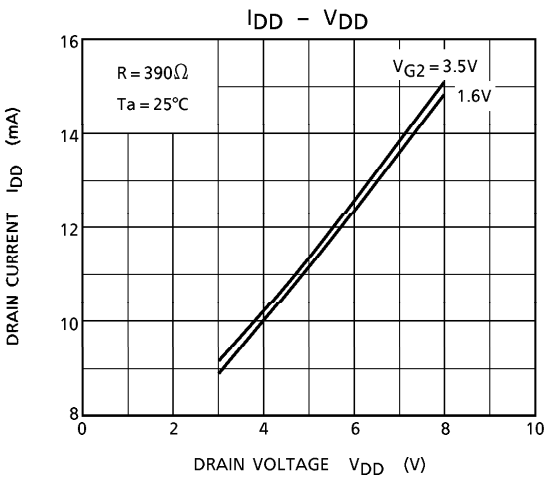
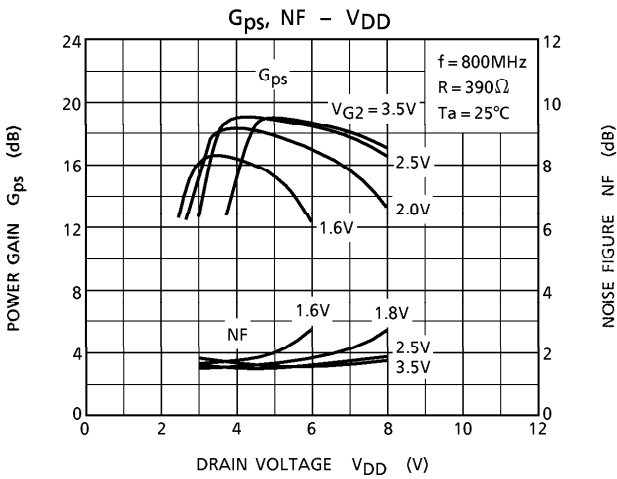
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{DD}	6	V
Gate 2-Drain Voltage	V_{G2DO}	- 6	V
Gate 2-Source Voltage	V_{G2S}	- 4	V
Gate 2 Current	I_{G2}	1	mA
Drain Power Dissipation	P_D	150	mW
Operating Temperature Range	T_{opr}	- 40~85	°C
Storage Temperature Range	T_{stg}	- 55~125	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

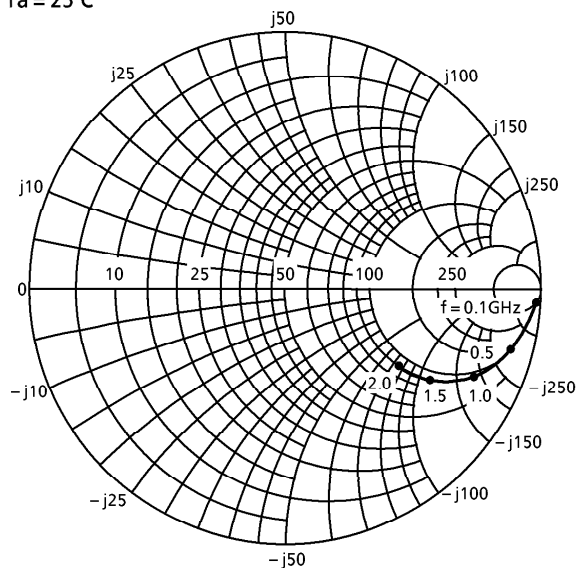
CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate 2 Leakage Current	I_{G2SS}	—	$V_{DS} = 0, V_{G1S} = 0, V_{G2S} = -3V$	—	—	- 4	μA
Drain Current	I_{DSS}	—	$V_{DS} = 2V, V_{G1S} = 0, V_{G2S} = 0$	4	—	16	mA
Gate 2-Source Cut-off Voltage	$V_{G2S} (OFF)$	—	$V_{DS} = 2V, V_{G1S} = 0$ $I_D = 100\mu A$	- 0.75	—	- 1.3	V
Forward Transfer Admittance	$ Y_{fs} $	—	$V_{DS} = 2V, V_{G2S} = 0.5V$ $I_D = 2mA, f = 1kHz$	—	12	—	mS
Drain Current	I_{DD}	1	$V_{DD} = 4.5V, V_{G2} = 2.5V$ $R = 390\Omega$	—	11	—	mA
Power Gain	G_{ps}	2	$V_{DD} = 4.5V, V_{G2} = 2.5V$ $f = 800MHz, R = 390\Omega$	15	19	—	dB
Noise Figure	NF			—	1.5	2.5	dB

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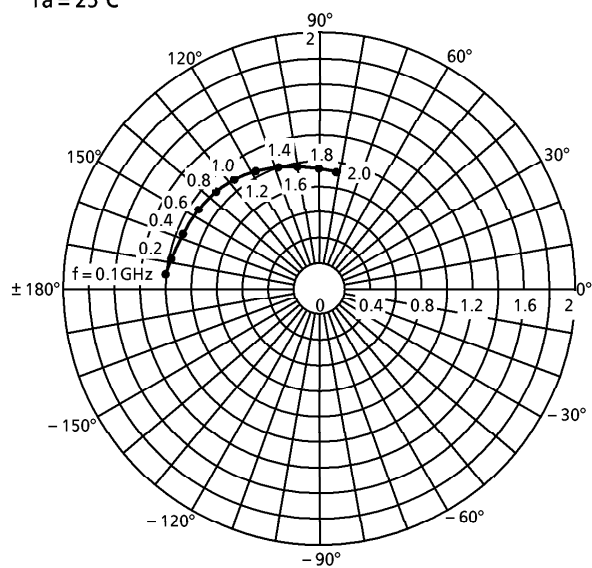
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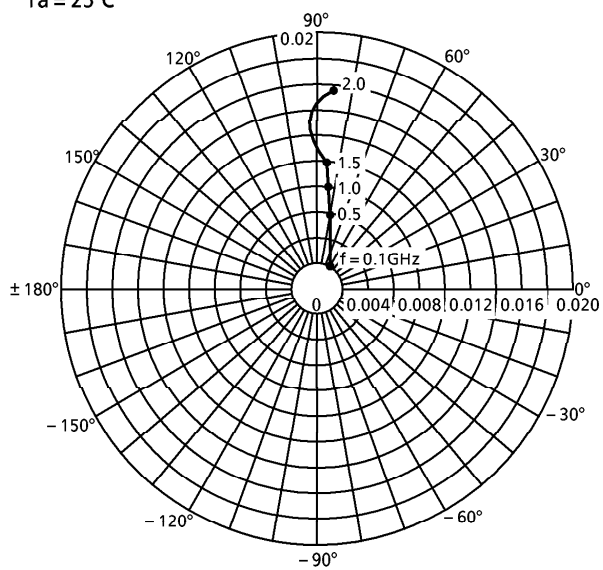
S₁₁
V_{DD} = 4.5V
V_{G2} = 2.5V
f = 800MHz
R = 390Ω
T_a = 25°C



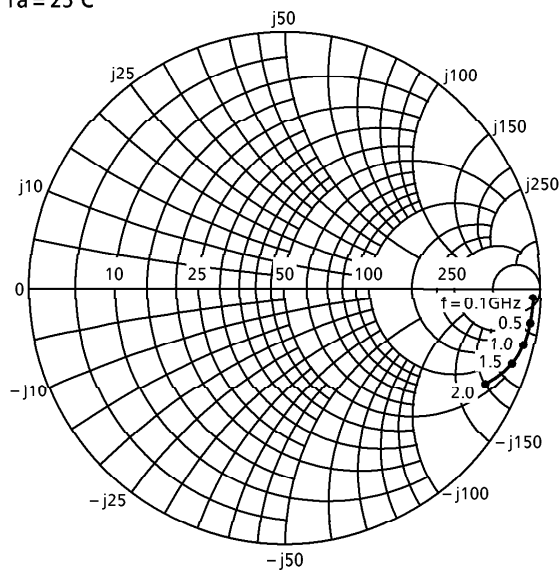
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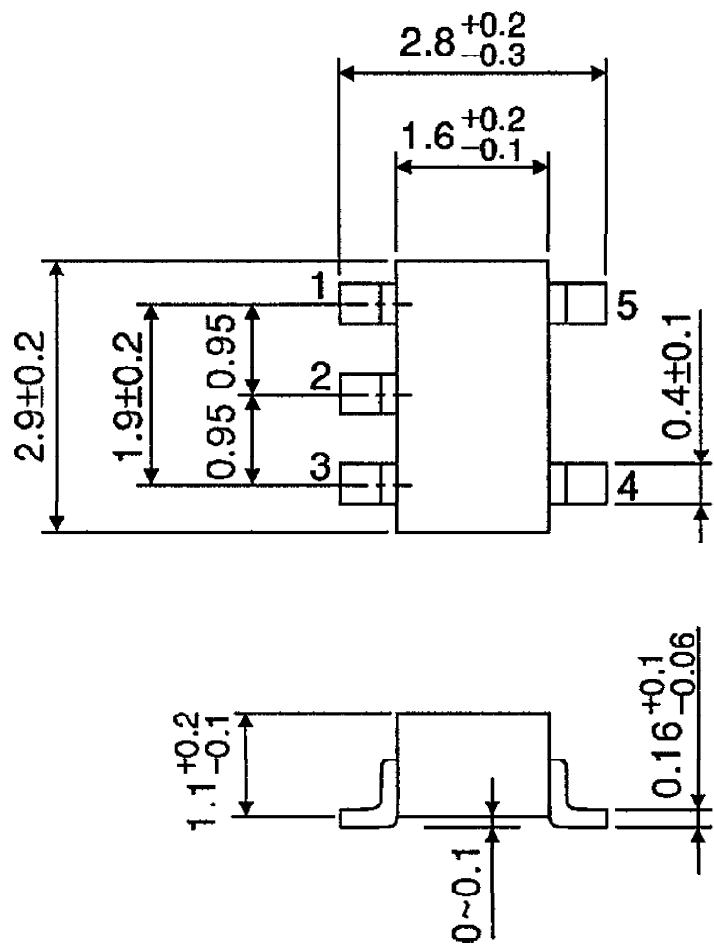


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OUTLINE DRAWING
SSOP5-P-0.95

Unit : mm



Weight : 0.014g (Typ.)