

**3SK264**

## VHF Tuner, High-Frequency Amplifier Applications

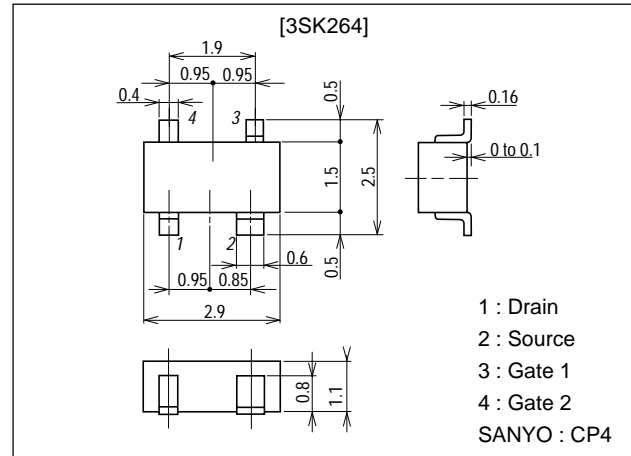
### Features

- Enhancement type.
- Easy AGC (Cut off at  $V_{G2S}=0V$ ).
- Small noise figure.
- Excels in cross modulation characteristics.

### Package Dimensions

unit:mm

2096A



### Specifications

#### Absolute Maximum Ratings at $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	$V_{DS}$		15	V
Gate1-to-Source Voltage	$V_{G1S}$		$\pm 8$	V
Gate2-to-Source Voltage	$V_{G2S}$		$\pm 8$	V
Drain Current	$I_D$		30	mA
Allowable Power Dissipation	$P_D$		200	mW
Channel Temperature	$T_{ch}$		125	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ C$

#### Electrical Characteristics at $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Voltage	$V_{DS}$	$V_{G1S}=0V, V_{G2S}=0V, I_D=100\mu A$	15			V
Gate1-to-Source Cutoff Voltage	$V_{G1S(off)}$	$V_{DS}=6V, V_{G2S}=4V, I_D=100\mu A$	0	0.7	1.3	V
Gate2-to-Source Cutoff Voltage	$V_{G2S(off)}$	$V_{DS}=6V, V_{G1S}=3V, I_D=100\mu A$	0.1	0.9	1.6	V
Gate1-to-Source Leakage Current	$I_{G1SS}$	$V_{G1S}=\pm 6V, V_{G2S}=V_{DS}=0V$			$\pm 50$	nA
Gate2-to-Source Leakage Current	$I_{G2SS}$	$V_{G2S}=\pm 6V, V_{G1S}=V_{DS}=0V$			$\pm 50$	nA
Zero-Gate Voltage Drain Current	$I_{DSX}$	$V_{DS}=6V, V_{G1S}=1.5V, V_{G2S}=4V$	5.0*		24.0*	mA
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=6V, I_D=10mA, V_{G2S}=4V, f=1kHz$		17		mS

\* : The 3SK264 is classified by  $I_{DSX}$  as follows : (unit : mA)

Marking : SJ

 $I_{DSX}$  rank : 5, 6

5.0	5	12.0	10.0	6	24.0
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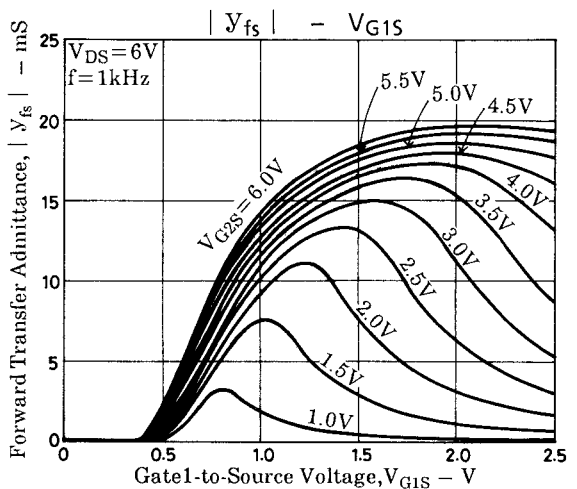
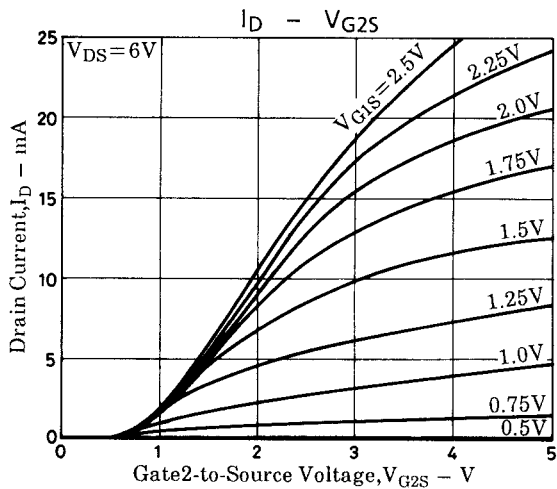
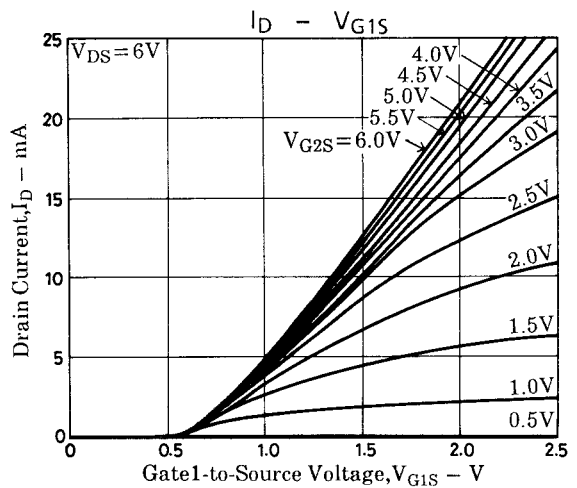
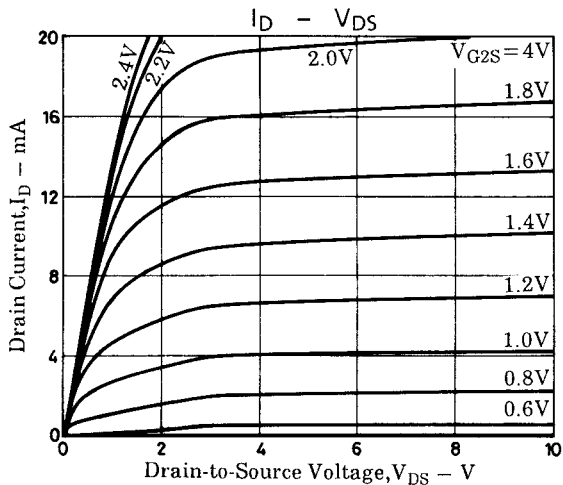
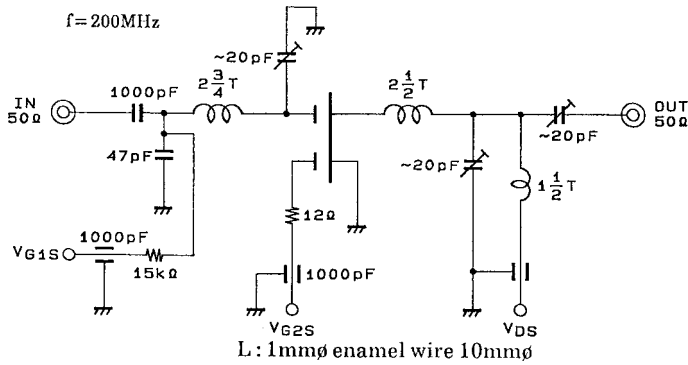
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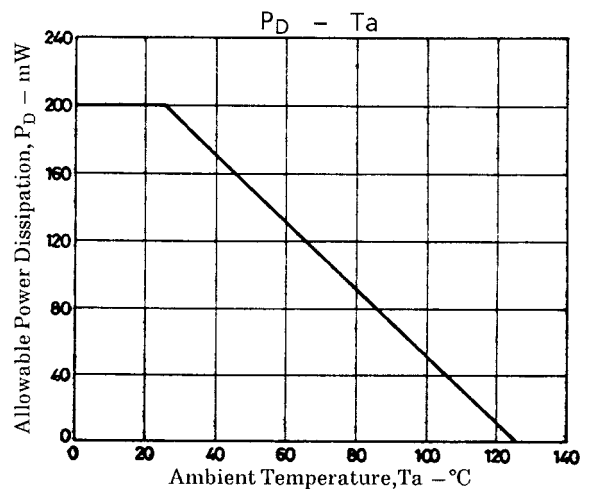
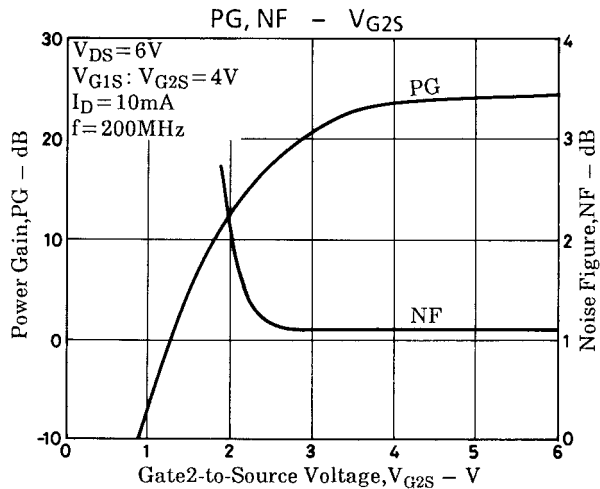
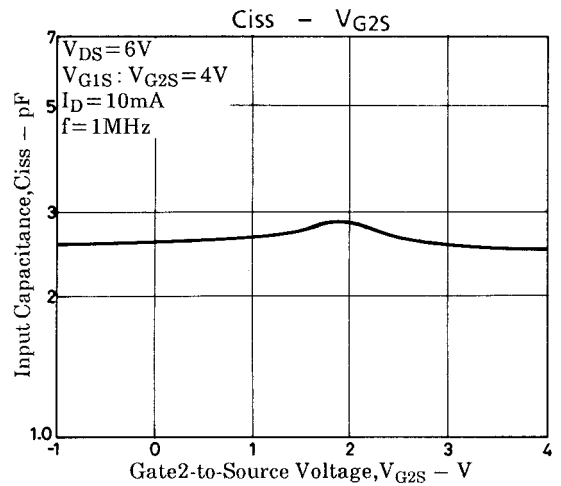
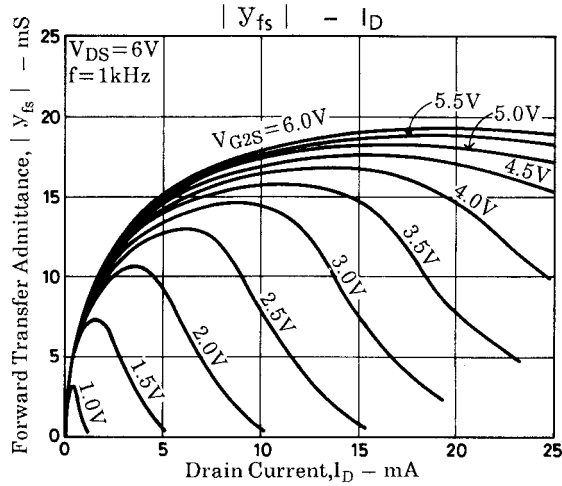
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	Ciss	$V_{DS}=6V, V_{G1S}=0V, V_{G2S}=4V, f=1MHz$		2.5		pF
Reverse Transfer Capacitance	Crss	$V_{DS}=6V, V_{G1S}=0V, V_{G2S}=4V, f=1MHz$		0.015	0.03	pF
Power Gain	PG	$V_{DS}=6V, I_D=10mA, V_{G2S}=4V, f=200MHz$	20	23		dB
Noise Figure	NF	$V_{DS}=6V, I_D=10mA, V_{G2S}=4V, f=200MHz$		1.1	2.2	dB

## PG, NF Specified Test Circuit





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