

**3SK265**

VHF, CATV Tuner, High-Frequency Amplifier Applications

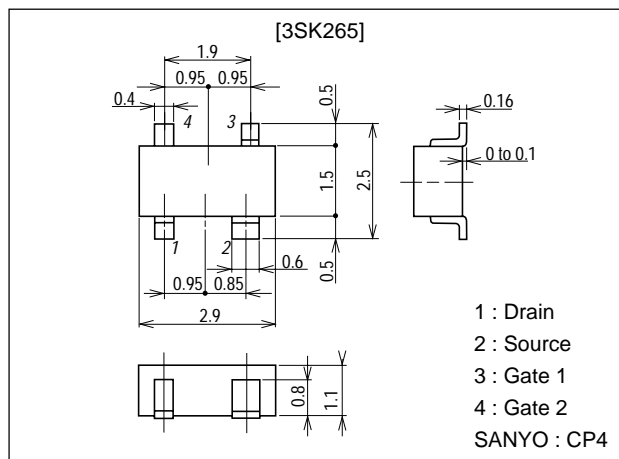
Features

- Enhancement type.
- Easy AGC (Cut off at $V_{G2S}=0V$).
- Small noise figure.
- High power gain.
- Ideally suited for RF amplifier of CATV wide-band tuners.

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}		± 8	V
Gate2-to-Source Voltage	V_{G2S}		± 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}	$V_{G1S}=0V, V_{G2S}=0V, I_{DS}=100\mu A$	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}	$V_{G1S}=\pm 6V, V_{G2S}=V_{DS}=0V$			± 50	nA
Gate2-to-Source Leakage Current	I_{G2SS}	$V_{G2S}=\pm 6V, V_{G1S}=V_{DS}=0V$			± 50	nA
Zero-Gate Voltage Drain Current	I_{DSX}	$V_{DS}=6V, V_{G1S}=1.2V, V_{G2S}=4V$	5.0*		24.0*	mA
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=6V, I_D=10mA, V_{G2S}=4V, f=1kHz$		22		mS

* : The 3SK265 is classified by I_{DSX} as follows : (unit : mA)

Marking : TJ

 I_{DSX} rank : 5, 6

5.0	5	12.0	10.0	6	24.0
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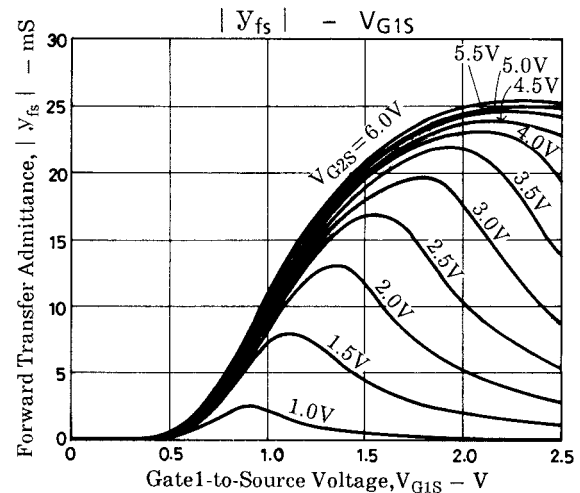
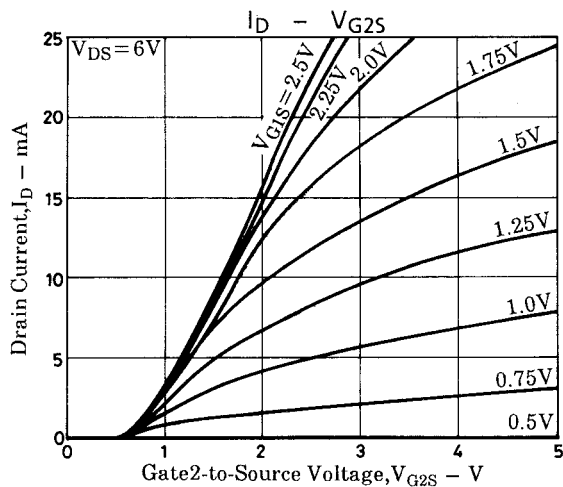
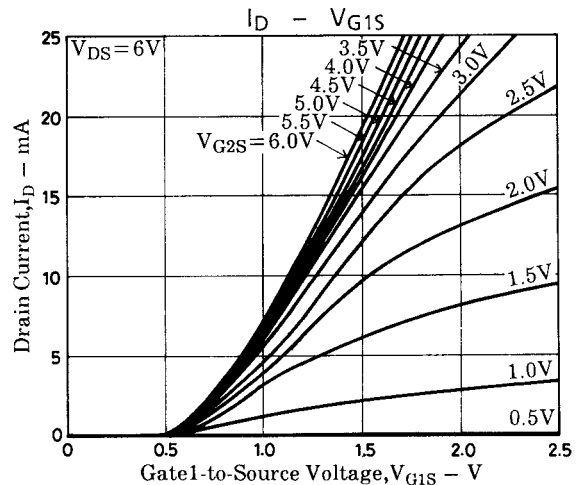
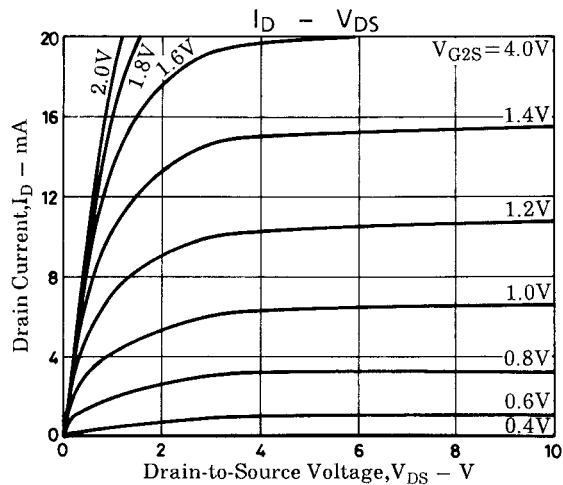
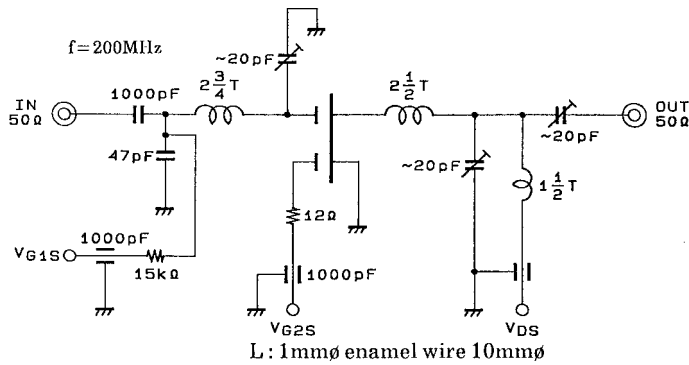
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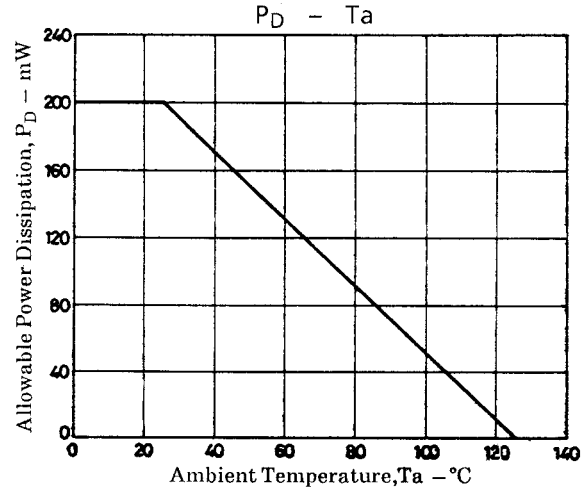
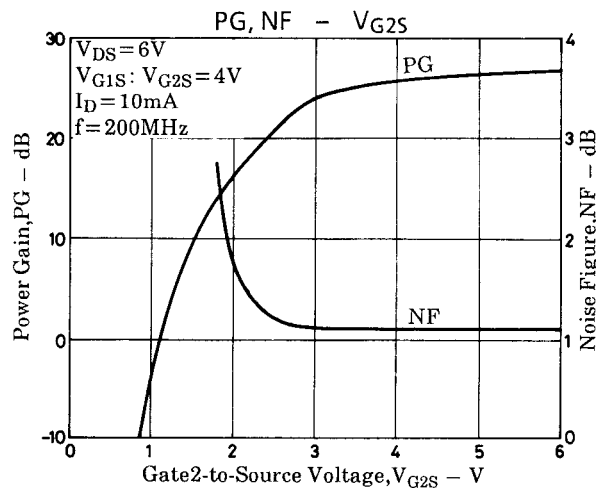
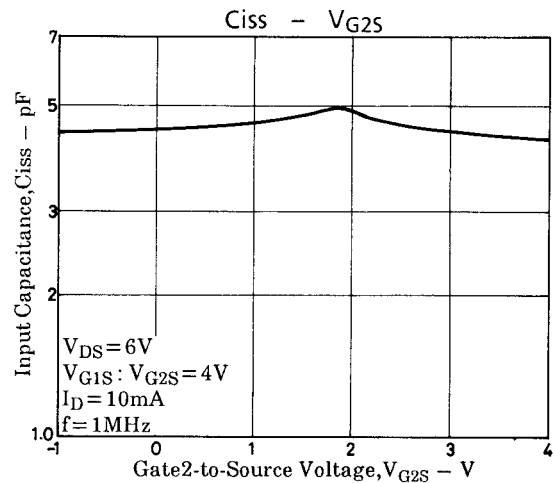
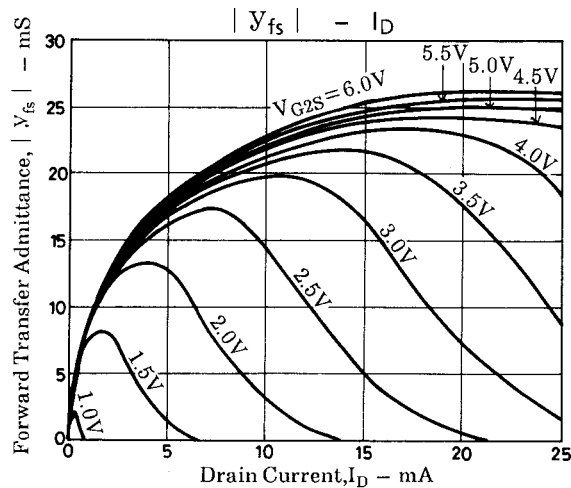
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	C_{iss}	$V_{DS}=6V, V_{G1S}=0V, V_{G2S}=4V, f=1MHz$		4.0		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=6V, V_{G1S}=0V, V_{G2S}=4V, f=1MHz$		0.015	0.03	pF
Power Gain	PG	$V_{DS}=6V, I_D=10mA, V_{G2S}=4V, f=200MHz$	23	26		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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