Ordering number:ENN4902

N-Channel Silicon MOSFET

3SK265

VHF, CATV Tuner, High-Frequency Amplifier Applications

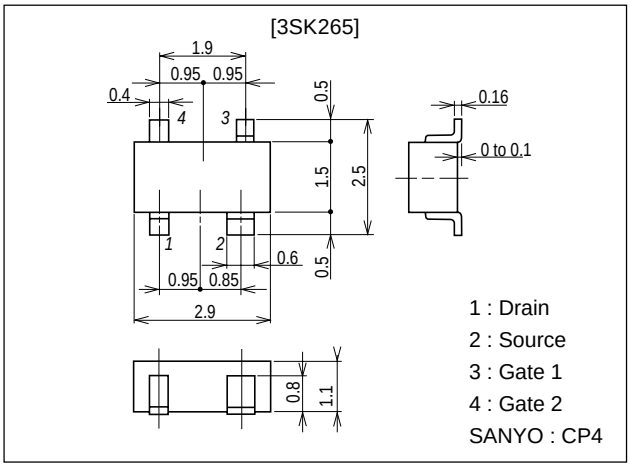
Features

- 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 Ta = 25˚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	Tch		125	˚C
Storage Temperature	Tstg		–55 to +125	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Voltage	V_{DS}	V_{G1S}=0V, V_{G2S}=0V, I_{DS}=100µA	15			V
Gate1-to-Source Cutoff Voltage	$V_{G1S(off)}$	V_{DS}=6V, V_{G2S}=4V, I_D=100µA	0	0.7	1.3	V
Gate2-to-Source Cutoff Voltage	$V_{G2S(off)}$	V_{DS}=6V, V_{G1S}=3V, I_D=100µA	0.1	0.9	1.6	V
Gate1-to-Source Leakage Current	I_{G1SS}	V_{G1S}=±6V, V_{G2S}=V_{DS}=0V			±50	nA
Gate2-to-Source Leakage Current	I_{G2SS}	V_{G2S}=±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	| yfs |	V_{DS}=6V, I_D=10mA, V_{G2S}=4V, f=1kHz		22		mS

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

5.0	5	12.0	10.0	6	24.0

Marking : TJ

I_{DSX} rank : 5, 6

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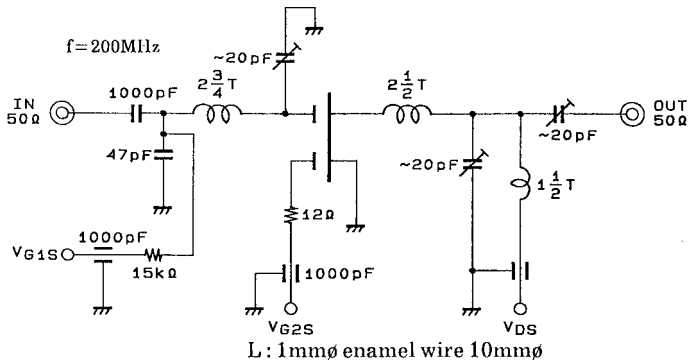
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	Ciss	V_{DS}=6V, V_{G1S}=0V, V_{G2S}=4V, f=1MHz		4.0		pF
Reverse Transfer Capacitance	Crss	V_{DS}=6V, V_{G1S}=0V, V_{G2S}=4V, f=1MHz		0.015	0.03	pF
Power Gain	PG	V_{DS}=6V, I_D=10mA, V_{G2S}=4V, f=200MHz	23	26		dB
Noise Figure	NF	V_{DS}=6V, I_D=10mA, V_{G2S}=4V, f=200MHz		1.1	2.2	dB

PG, NF Specified Test Circuit



L : 1mmø enamel wire 10mmø