



## FM Tuner, VHF-Band Amplifier Applications

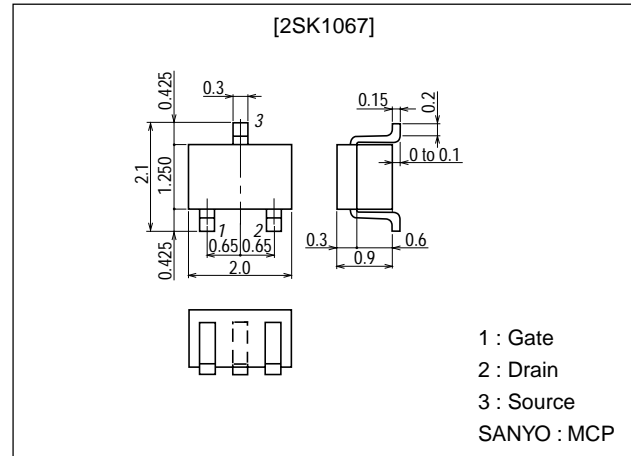
### Features

- Low noise NF=1.8dB typ (f=100MHz).
- High power gain PG=27dB typ (f=100MHz).
- Small reverse transfer capacitance Crss=0.035pF (V<sub>DS</sub>=10V, f=1MHz).
- Ultrasmall-sized package (MCP) permitting 2SK1067-applied sets to be made smaller and slimmer.

### Package Dimensions

unit:mm

2057



### Specifications

#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V <sub>DS</sub>		16	V
Gate-to-Source Voltage	V <sub>GS</sub>		±5	V
Drain Current	I <sub>D</sub>		30	mA
Allowable Power Dissipation	P <sub>D</sub>		150	mW
Channel Temperature	T <sub>ch</sub>		125	°C
Storage Temperature	T <sub>stg</sub>		-55 to +125	°C

#### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Voltage	V <sub>DSX</sub>	V <sub>GS</sub> =-4V, I <sub>D</sub> =100μA	16			V
Gate-to-Source Leakage Current	I <sub>GSS</sub>	V <sub>DS</sub> =0V, V <sub>GS</sub> =±5V			10	nA
Zero-Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0	1.2*		12.0*	mA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =100μA			-2.5	V
Forward Transfer Admittance	y <sub>fs</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0, f=1kHz		11		mS
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0, f=1MHz		2.3		pF
Reverse Transfer Capacitance	C <sub>rss</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0, f=1MHz		0.035		pF

\* : The 2SK1067 is classified by I<sub>DSS</sub> as follows (unit : mA) :

1.2	3	3.0	2.5	4	6.0	5.0	5	12.0
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(Note) Marking : CJ  
I<sub>DSS</sub> rank : 3, 4, 5

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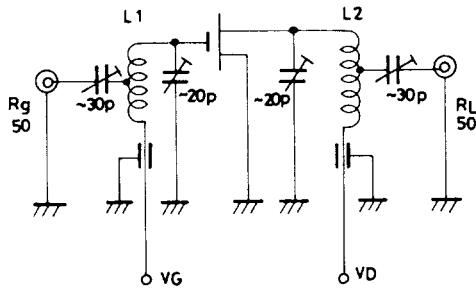
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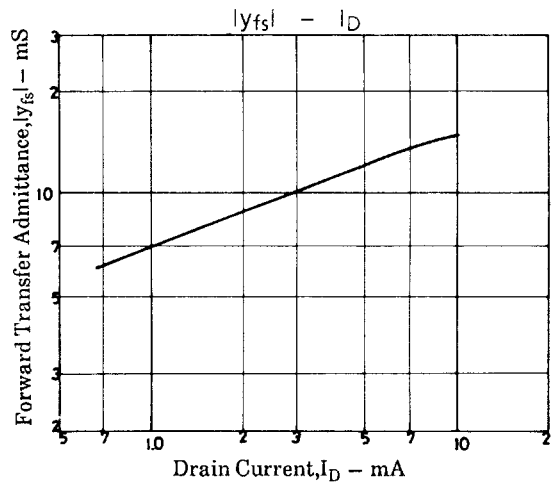
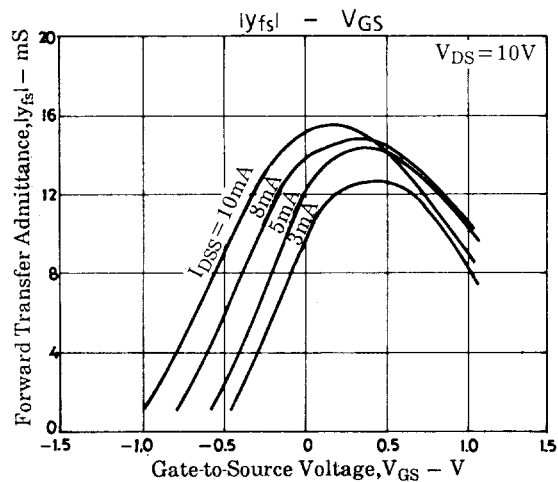
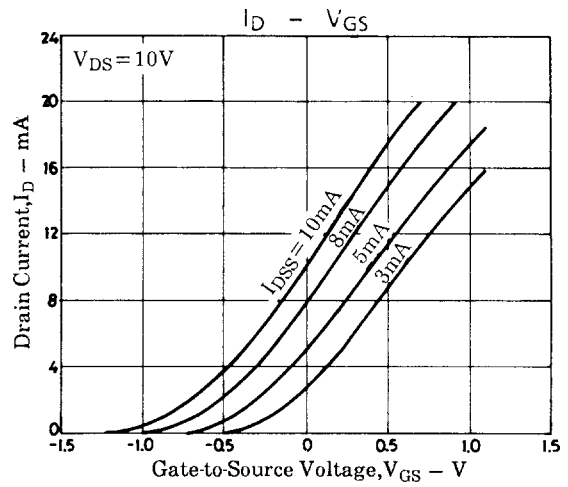
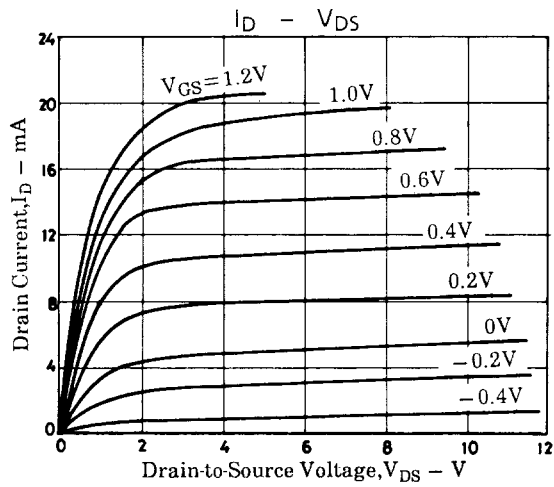
Parameter	Symbol	Conditions	Ratings		Unit
Power Gain	PG	$V_{DS}=10V, V_{GS}=0, f=100MHz,$ See specified Test Circuit	27		dB
Noise Figure	NF	$V_{DS}=10V, V_{GS}=0, f=100MHz,$ See specified Test Circuit	1.8	3.0	dB

## PG, NF Specified Test Circuit

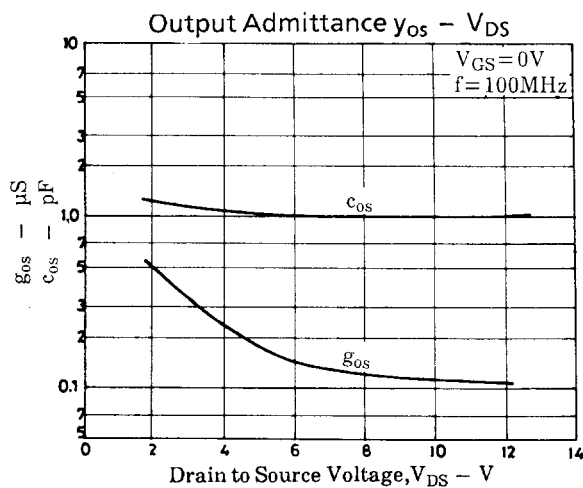
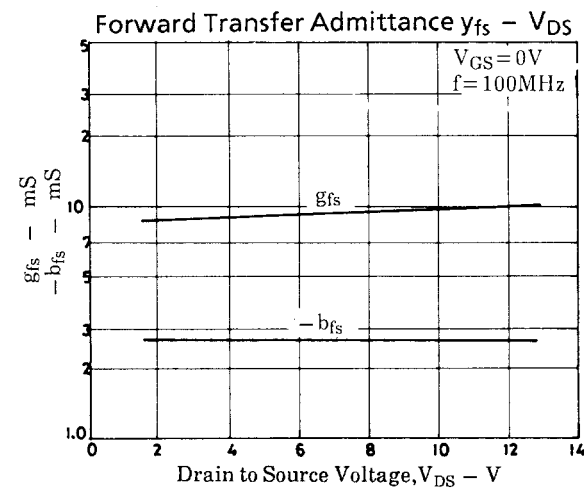
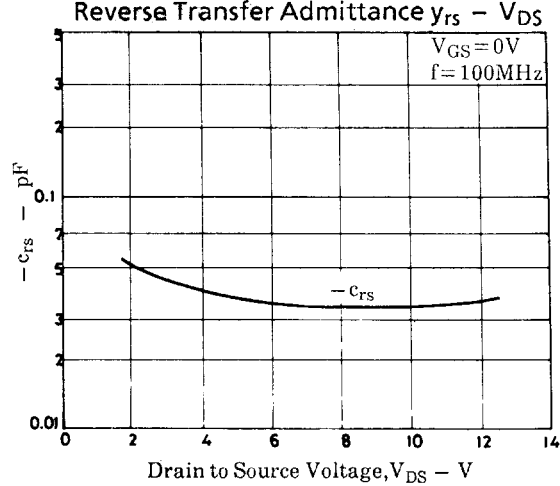
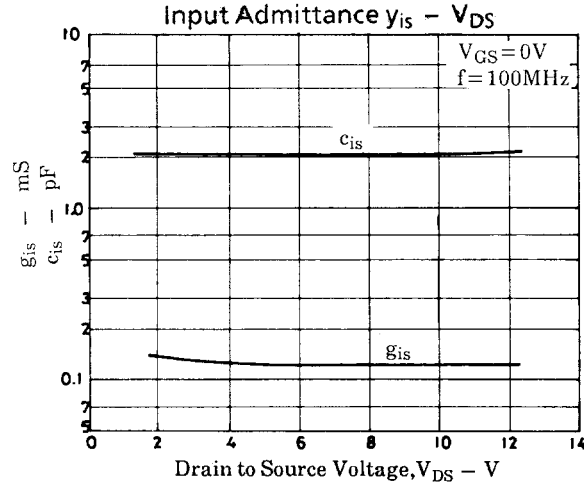
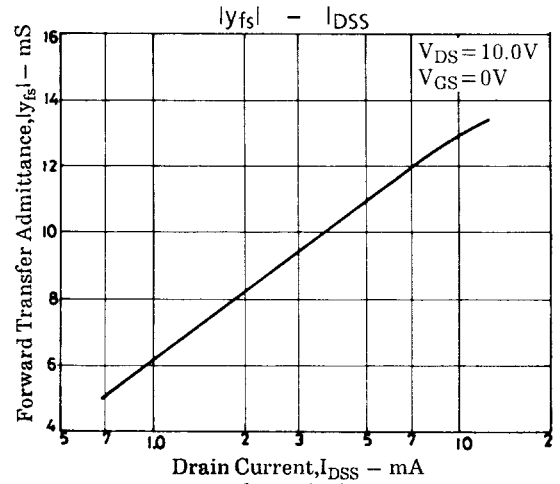
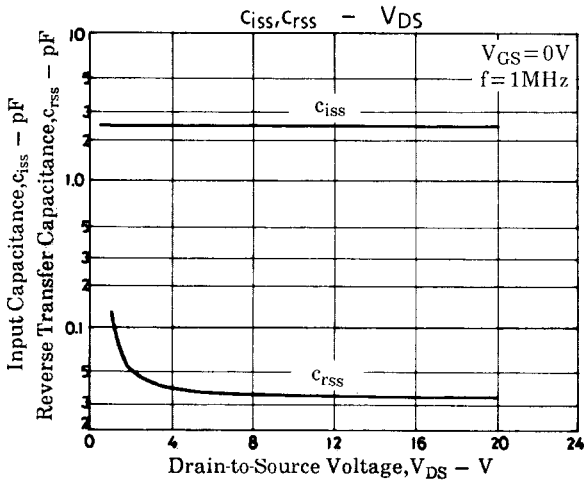
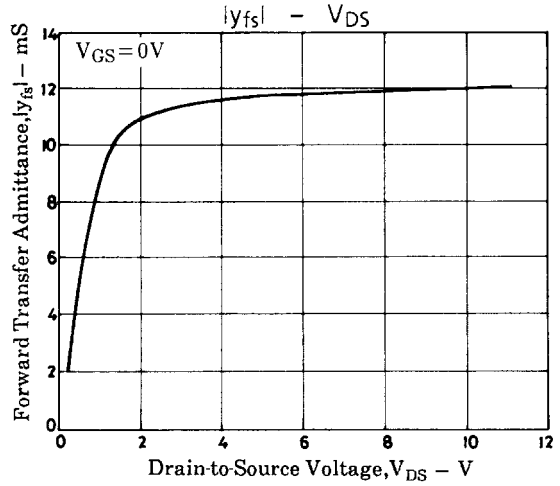
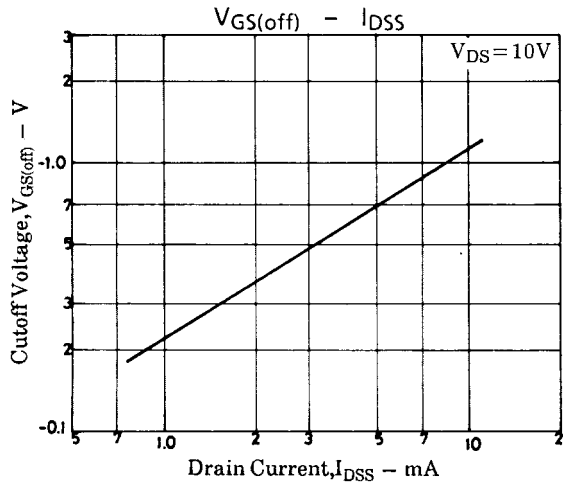


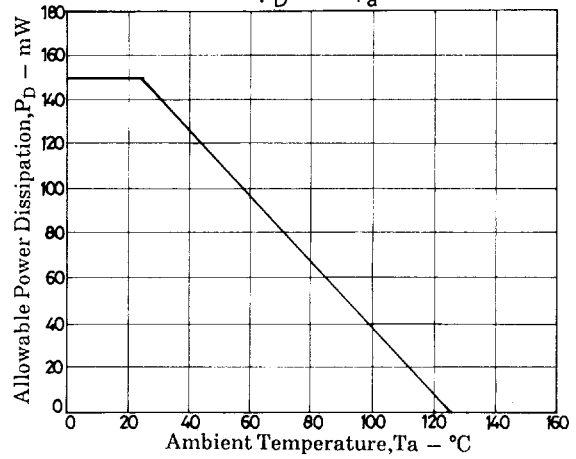
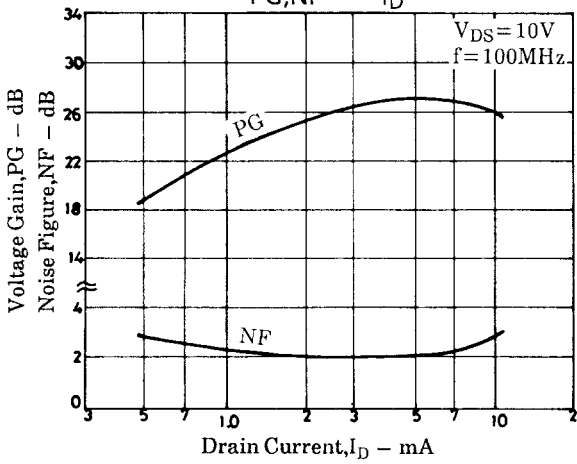
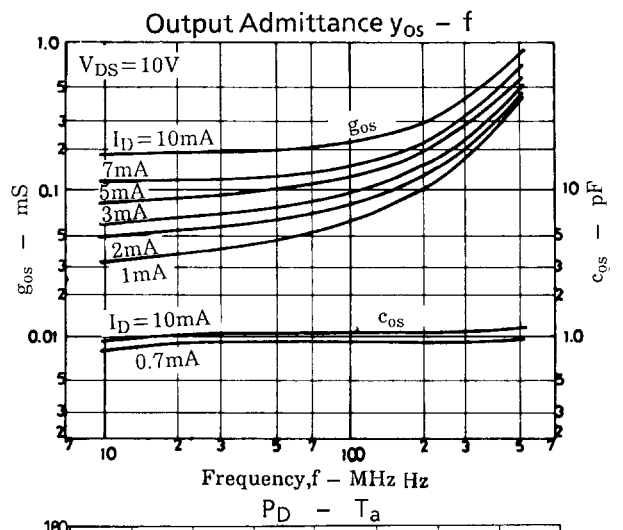
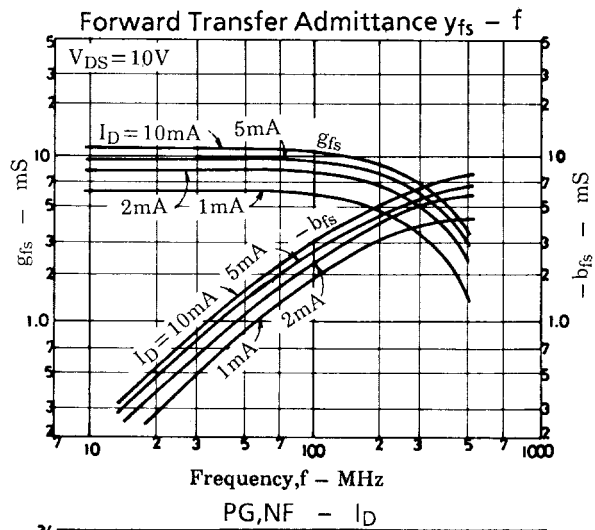
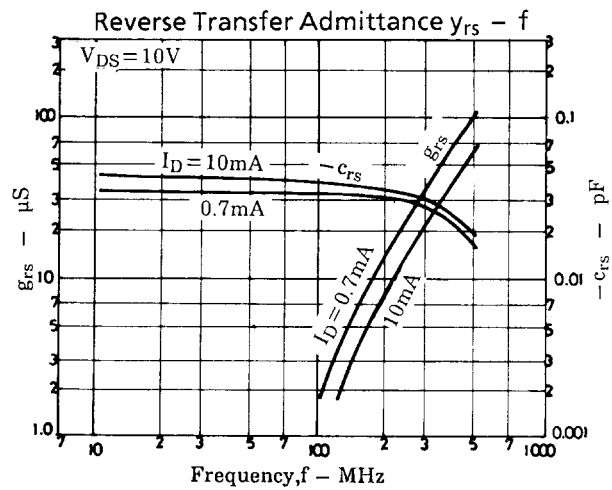
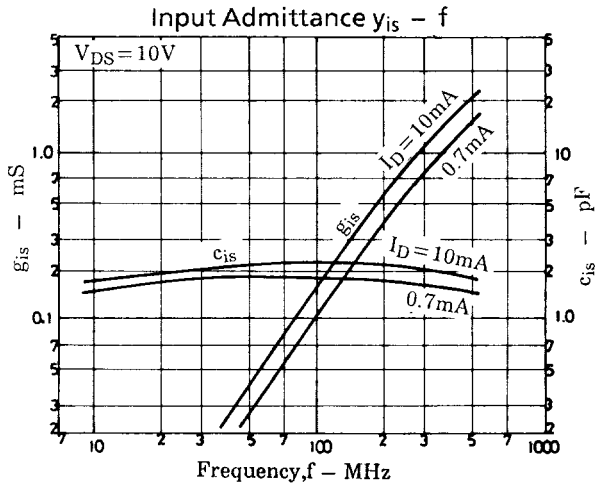
- L1 : 1.0mm $\varnothing$  plated wire, 10mm $\varnothing$  6T, tap : 3T from H side  
 L2 : 1.0mm $\varnothing$  plated wire, 10mm $\varnothing$  7T, tap : 4T from H side

Unit (resistance :  $\Omega$ , capacitance : F)



# 2SK1067





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