



FM Tuner, VHF-Band Amplifier Applications

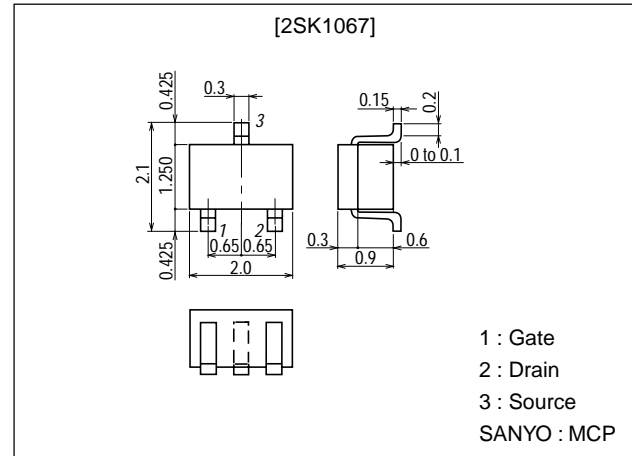
Features

- Low noise NF=1.8dB typ (f=100MHz).
- High power gain PG=27dB typ (f=100MHz).
- Small reverse transfer capacitance Crss=0.035pF (V_{DS}=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 _{DS} | | 16 | V |
| Gate-to-Source Voltage | V _{GS} | | ±5 | V |
| Drain Current | I _D | | 30 | mA |
| Allowable Power Dissipation | P _D | | 150 | mW |
| Channel Temperature | T _{ch} | | 125 | °C |
| Storage Temperature | T _{stg} | | -55 to +125 | °C |

Electrical Characteristics at Ta = 25°C

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

* : The 2SK1067 is classified by I_{DSS} 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_{DSS} rank : 3, 4, 5

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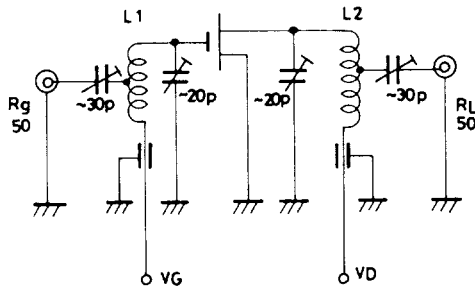
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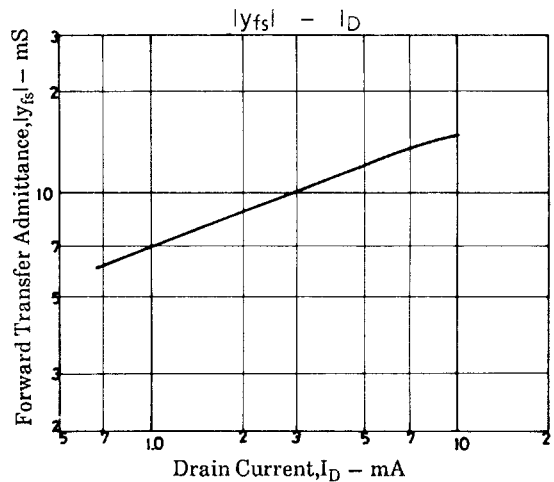
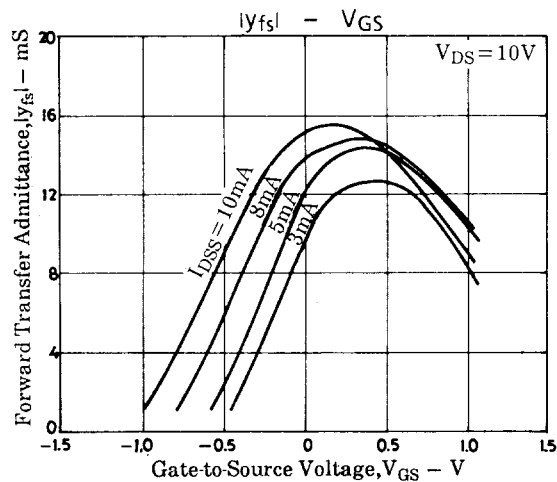
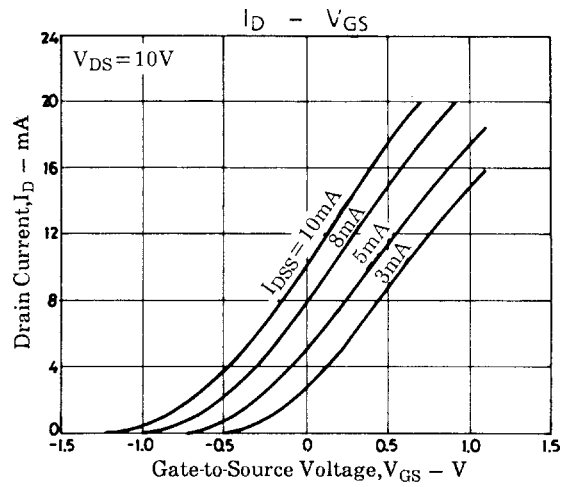
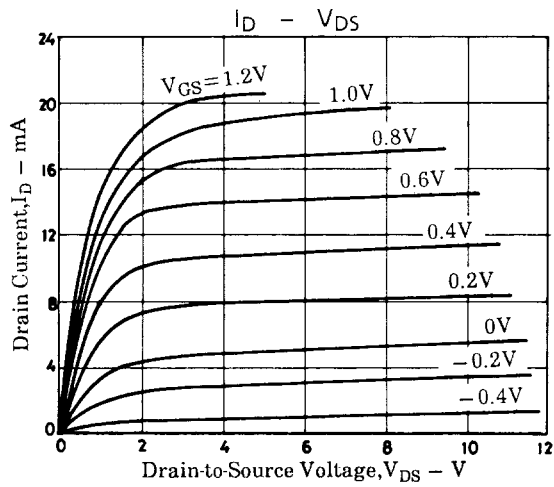
| Parameter | Symbol | Conditions | Ratings | | Unit |
|--------------|--------|---|---------|-----|------|
| Power Gain | PG | $V_{DS}=10V, V_{GS}=0, f=100MHz,$ See specified Test Circuit | 27 | | dB |
| Noise Figure | NF | $V_{DS}=10V, V_{GS}=0, f=100MHz,$ See specified Test Circuit | 1.8 | 3.0 | dB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

PG, NF Specified Test Circuit

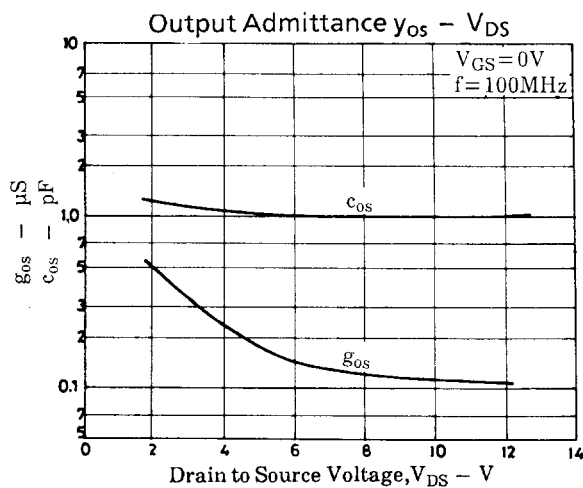
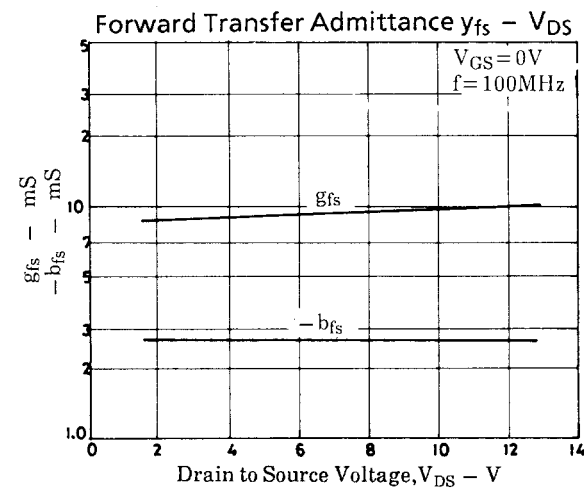
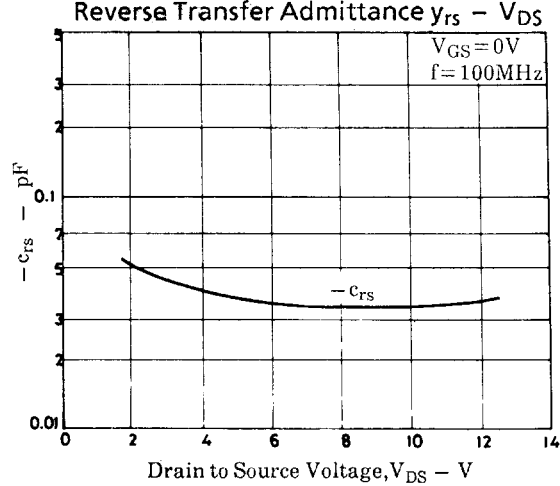
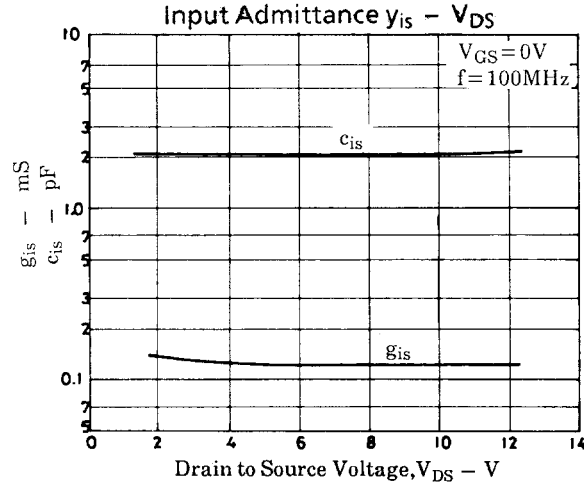
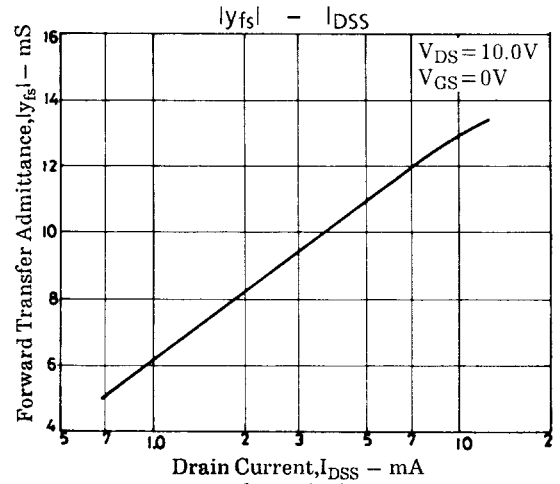
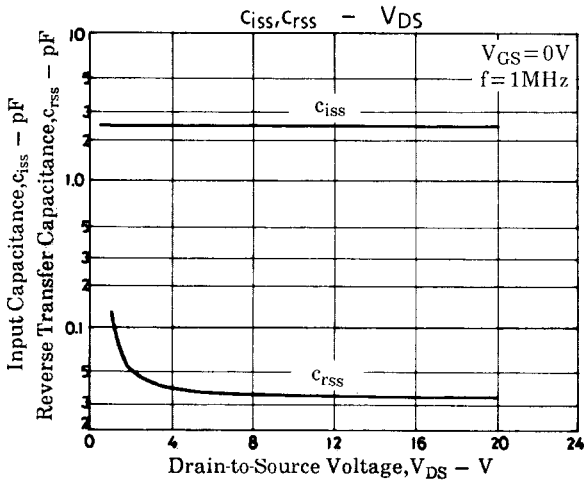
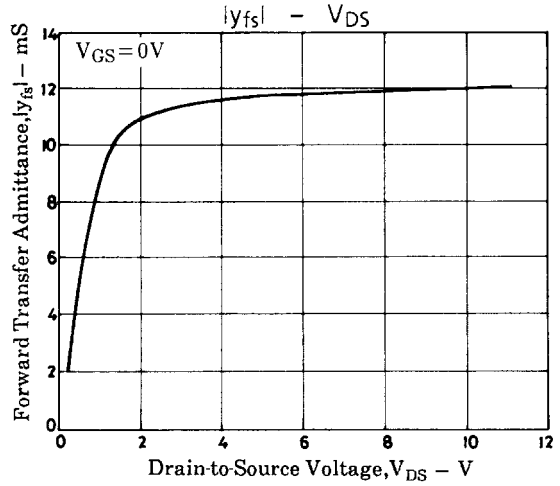
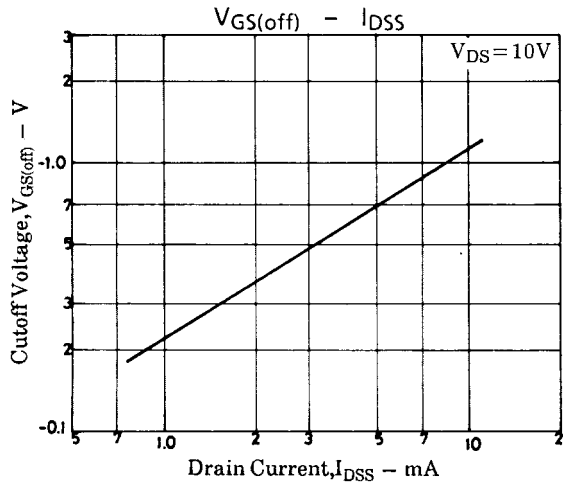


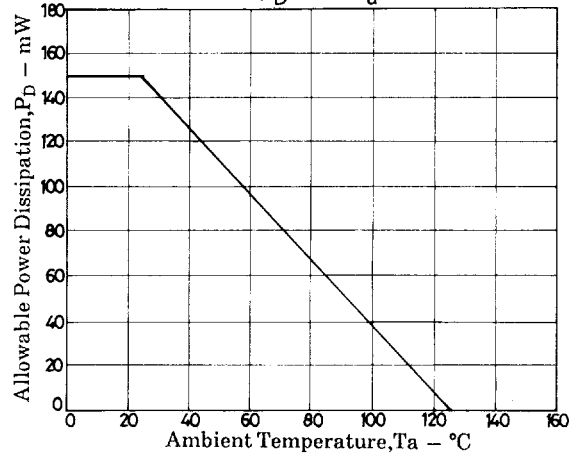
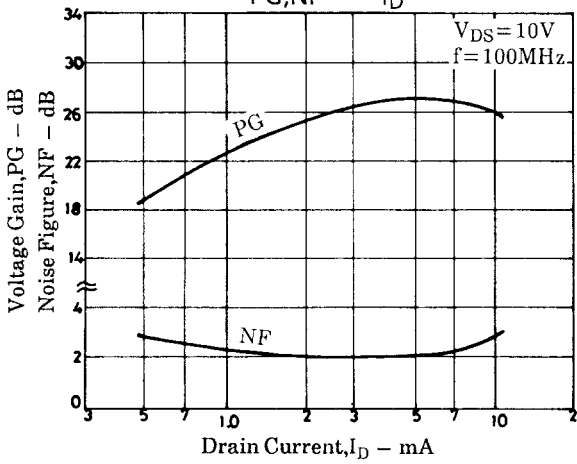
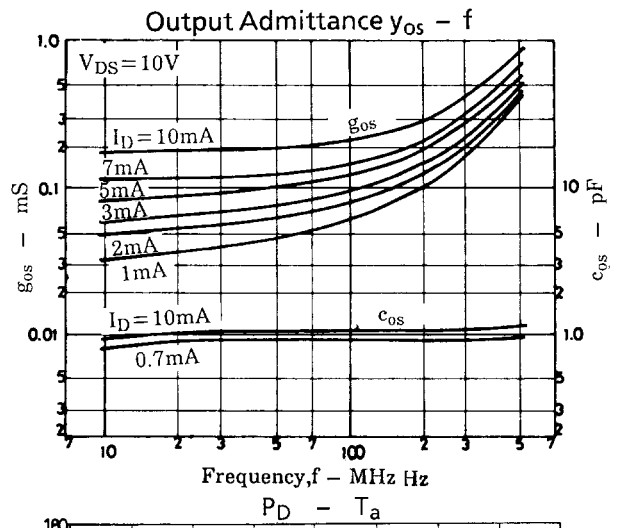
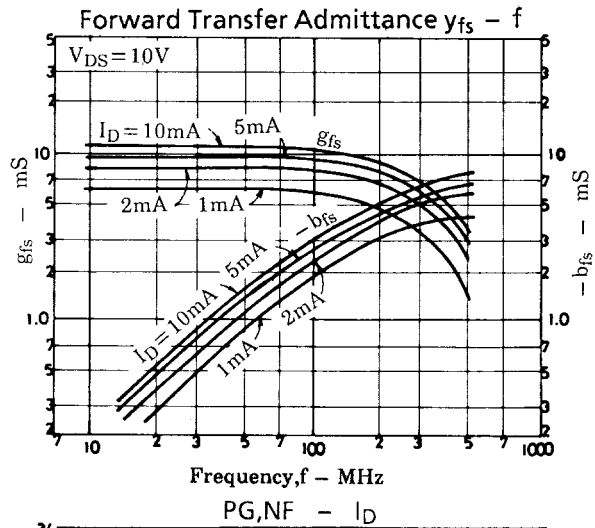
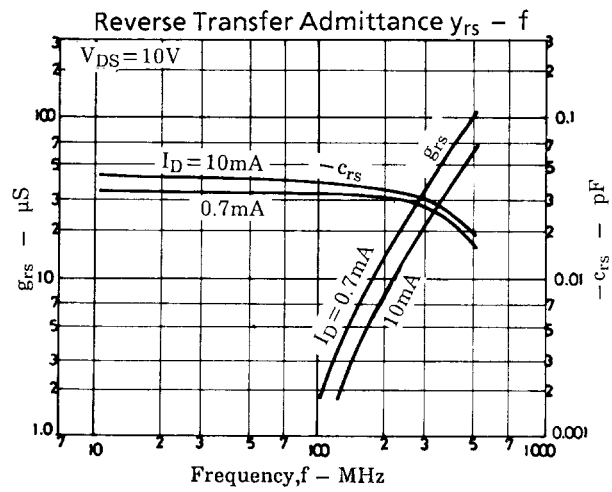
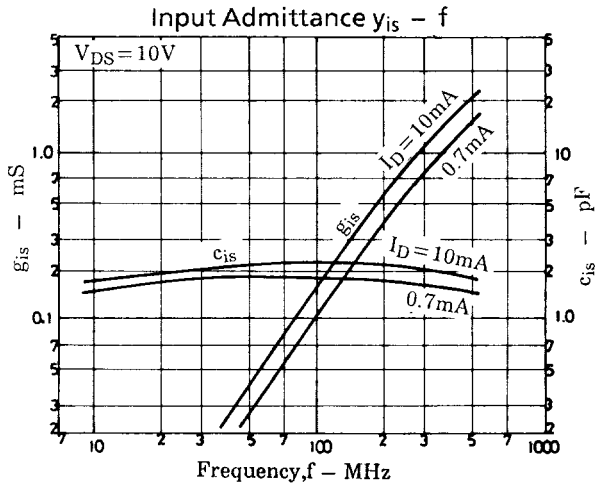
- L1 : 1.0mm \varnothing plated wire, 10mm \varnothing 6T, tap : 3T from H side
- L2 : 1.0mm \varnothing plated wire, 10mm \varnothing 7T, tap : 4T from H side

Unit (resistance : Ω , capacitance : F)



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