

**SANYO**

No.2719

**2SK1067**

N-Channel MOS Silicon FET

FM Tuner, VHF-Band Amp Applications

**Features**

- Low noise  $NF=1.8\text{dB typ}(f=100\text{MHz})$
- High power gain  $PG=27\text{dB typ}(f=100\text{MHz})$
- Small reverse transfer capacitance  $c_{rss}=0.035\text{pF}(V_{DS}=10\text{V}, f=1\text{MHz})$
- Very small-sized package(MCP) permitting 2SK1067-applied sets to be made smaller and slimmer

**Absolute Maximum Ratings at  $T_a=25^\circ\text{C}$** 

|                             |           |             | unit             |
|-----------------------------|-----------|-------------|------------------|
| Drain to Source Voltage     | $V_{DS}$  | 16          | V                |
| Gate to Source Voltage      | $V_{GS}$  | $\pm 5$     | V                |
| Drain Current               | $I_D$     | 30          | mA               |
| Allowable Power Dissipation | $P_D$     | 150         | mW               |
| Channel Temperature         | $T_{ch}$  | 125         | $^\circ\text{C}$ |
| Storage Temperature         | $T_{stg}$ | -55 to +125 | $^\circ\text{C}$ |

**Electrical Characteristics at  $T_a=25^\circ\text{C}$** 

|                               |               |   | min           | typ   | max            | unit |
|-------------------------------|---------------|---|---------------|-------|----------------|------|
| Drain to Source Voltage       | $V_{DSX}$     | $V_{GS}=-4\text{V}, I_D=100\mu\text{A}$                                       | 16            |       |                | V    |
| Gate Cutoff Current           | $I_{GSS}$     | $V_{DS}=0\text{V}, V_{GS}=\pm 5\text{V}$                                      |               |       | 10             | nA   |
| Drain Current                 | $I_{DSS}$     | $V_{DS}=10\text{V}, V_{GS}=0$   | $\approx 1.2$ |       | $\approx 12.0$ | mA   |
| Gate to Source Cutoff Voltage | $V_{GS(off)}$ | $V_{DS}=10\text{V}, I_D=100\mu\text{A}$                                       |               |       | -2.5           | V    |
| Forward Transfer Admittance   | $ y_{fs} $    | $V_{DS}=10\text{V}, V_{GS}=0, f=1\text{kHz}$                                  |               | 11    |                | mS   |
| Input Capacitance             | $c_{iss}$     | $V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$                                  |               | 2.3   |                | pF   |
| Reverse Transfer Capacitance  | $c_{rss}$     | $V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$                                  |               | 0.035 |                | pF   |
| Power Gain                    | PG            | $V_{DS}=10\text{V}, V_{GS}=0, f=100\text{MHz}$                                |               | 27    |                | dB   |
| Noise Figure                  | NF            | See specified Test Circuit.<br>$V_{DS}=10\text{V}, V_{GS}=0, f=100\text{MHz}$ |               | 1.8   | 3.0            | dB   |

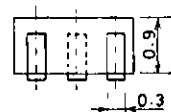
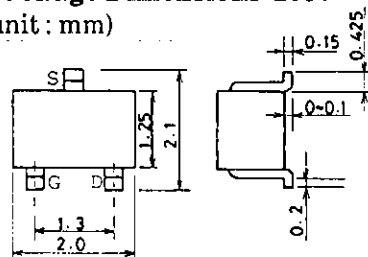
※ : The 2SK1067 is classified by  $I_{DSS}$  as follows (unit : mA) :

|     |   |     |     |   |     |     |   |      |
|-----|---|-----|-----|---|-----|-----|---|------|
| 1.2 | 3 | 3.0 | 2.5 | 4 | 6.0 | 5.0 | 5 | 12.0 |
|-----|---|-----|-----|---|-----|-----|---|------|

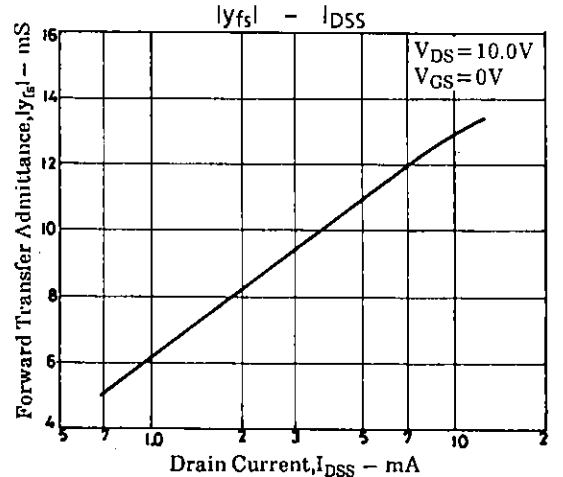
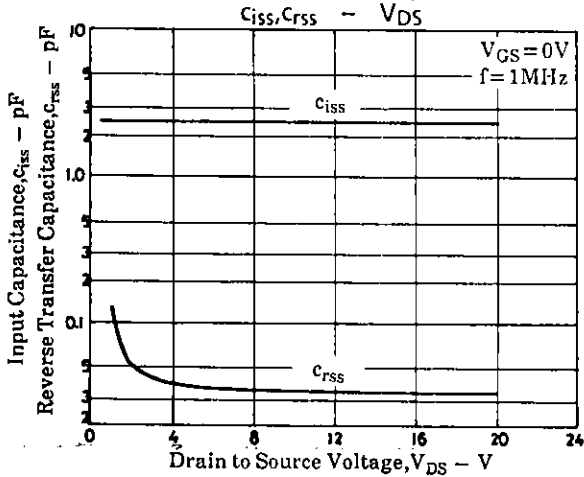
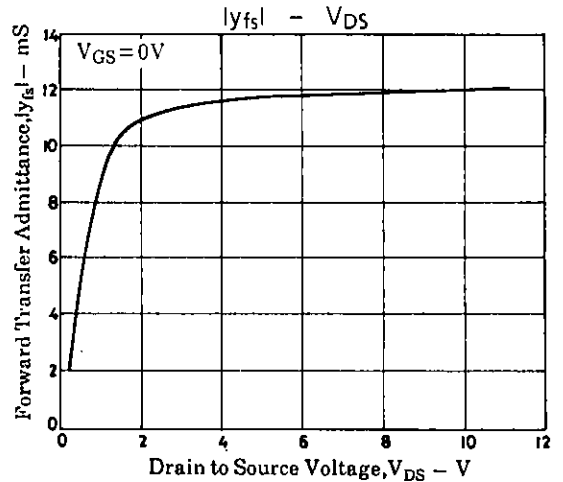
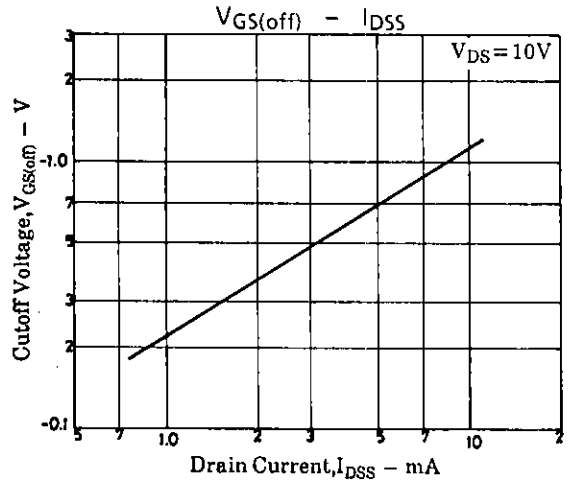
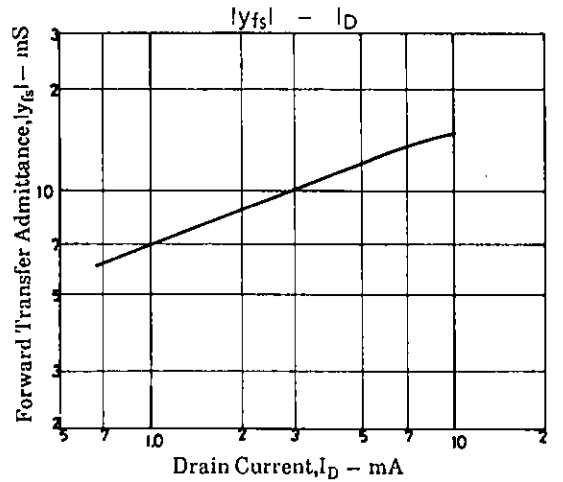
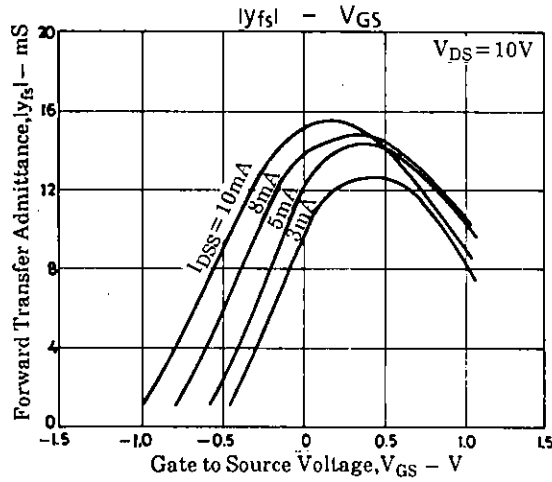
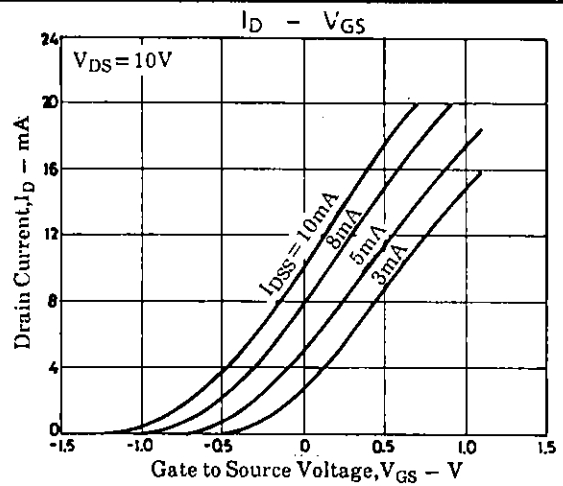
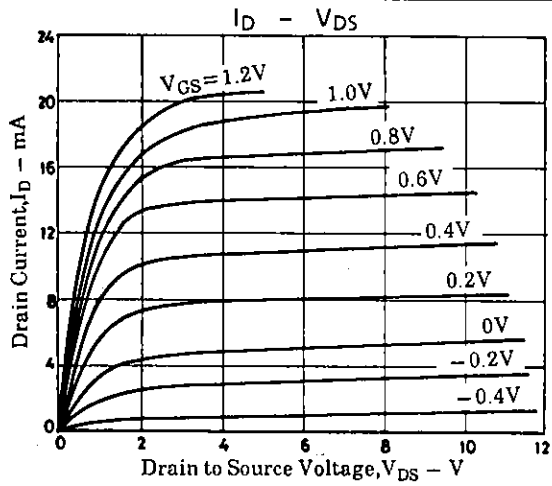
(Note) Marking : CJ  
 $I_{DSS}$  rank : 3,4,5

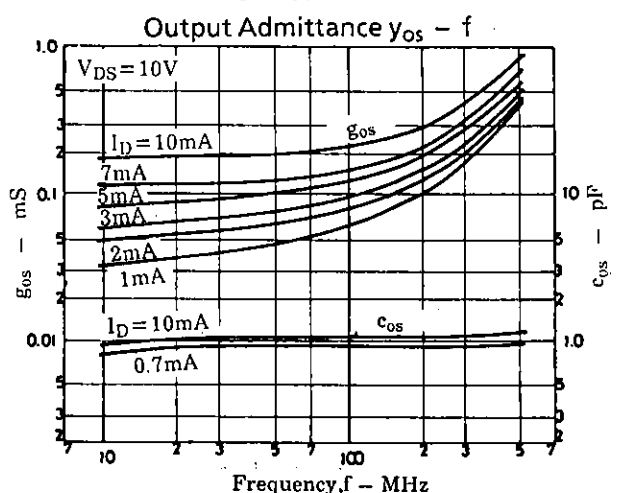
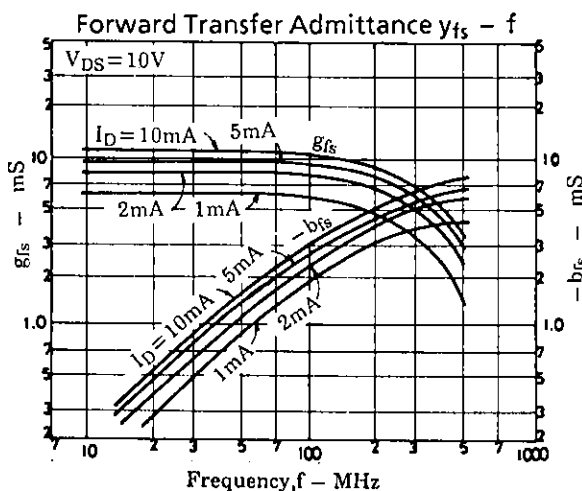
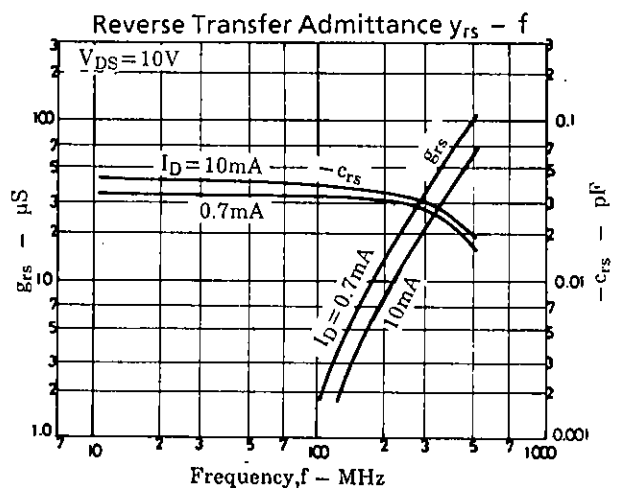
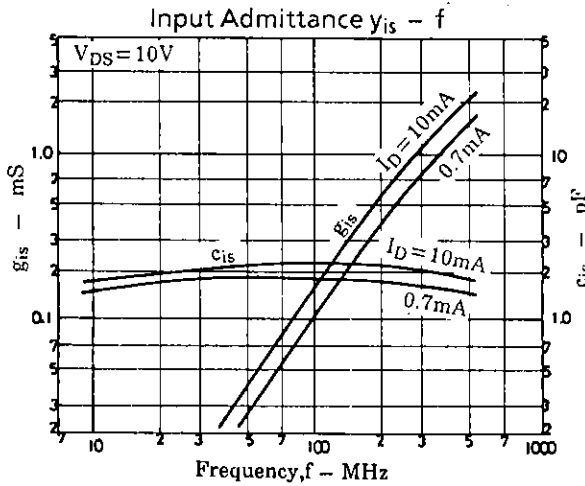
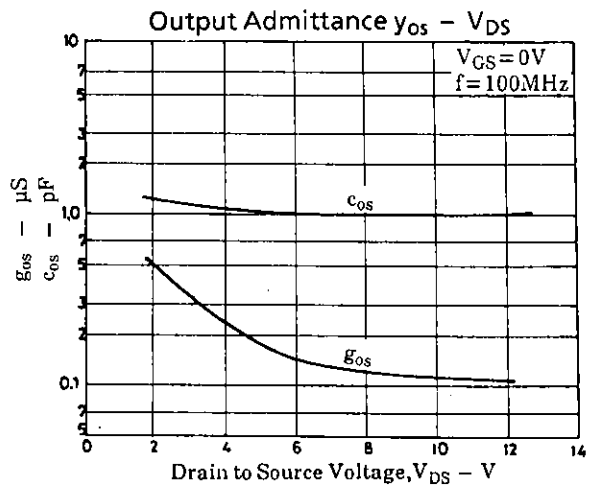
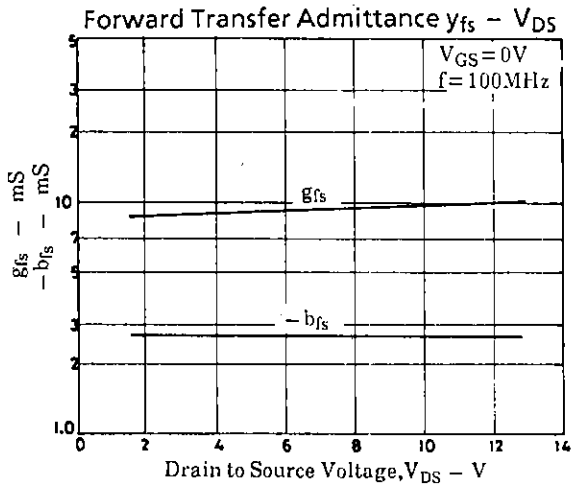
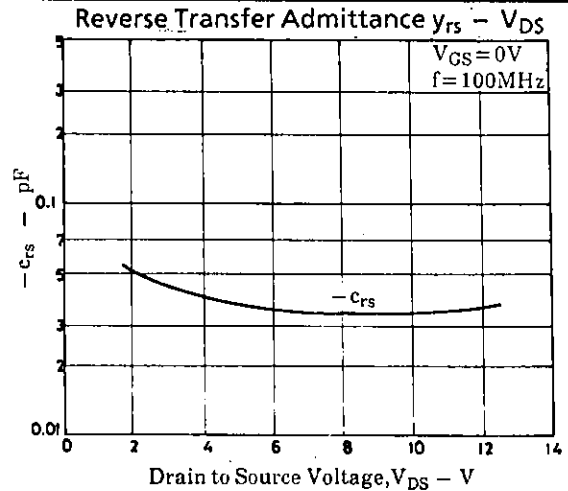
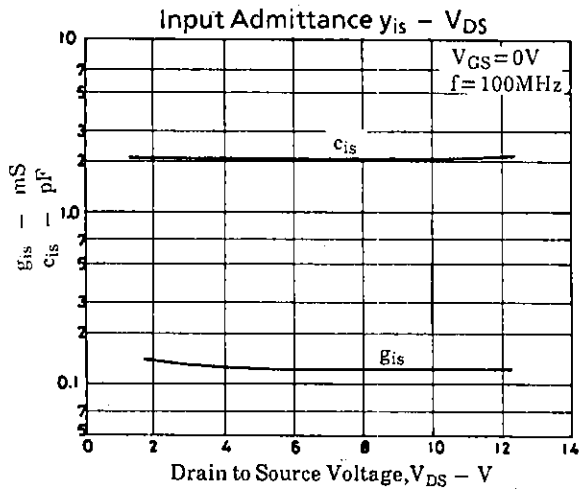
**Package Dimensions 2057**

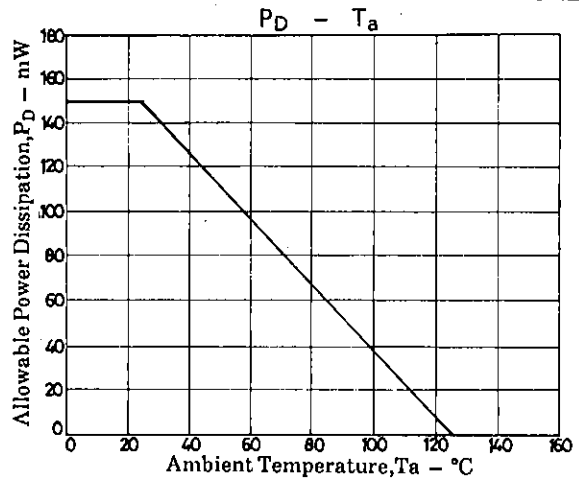
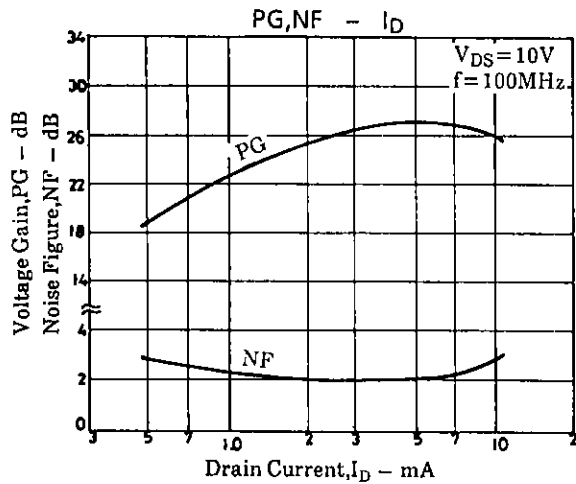
(unit : mm)



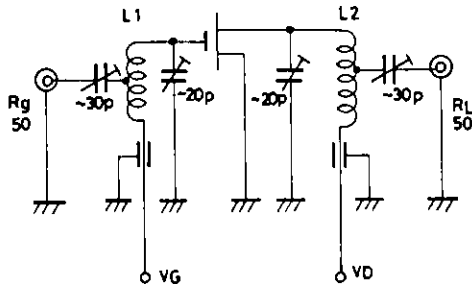
SANYO: MCP  
G: Gate  
S: Source  
D: Drain







PG,NF 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)

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