

2SK662

Silicon N-Channel Junction

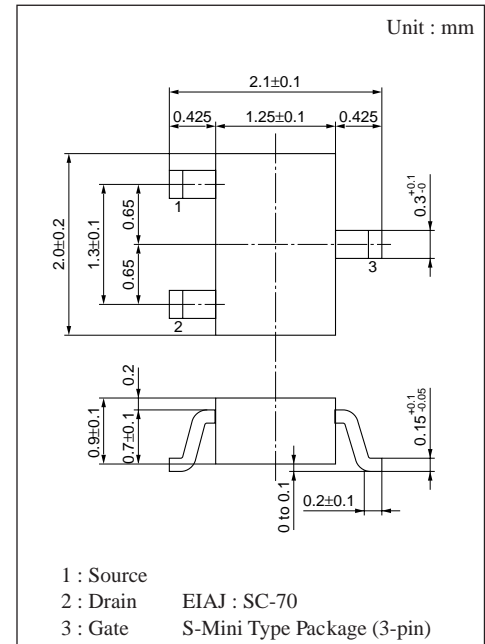
For low-frequency amplification

■ Features

- High mutual conductance g_m
- Low noise type
- Downsizing of sets by S-mini type package and automatic insertion by taping/magazine packing are available.

■ Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Rating | Unit |
|-----------------------------|-----------|-------------|------------------|
| Drain-Source voltage | V_{DSX} | 30 | V |
| Gate-Drain voltage | V_{GDO} | - 30 | V |
| Drain current | I_D | ± 20 | mA |
| Gate current | I_G | 10 | mA |
| Allowable power dissipation | P_D | 150 | mW |
| Junction temperature | T_j | 125 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +125 | $^\circ\text{C}$ |



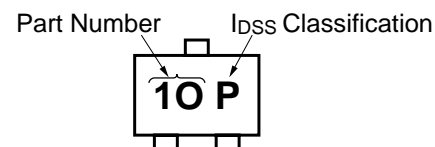
■ Electrical Characteristics ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Condition | Min | Typ | Max | Unit |
|------------------------------|-------------|--|-------|-----|------|------|
| Drain-Source cut-off current | I_{DSS}^* | $V_{DS}=10\text{V}, V_{GS}=0$ | 0.5 | | 12 | mA |
| Gate-Source leakage current | I_{GSS} | $V_{GS}=\pm 30\text{V}, V_{DS}=0$ | | | -100 | nA |
| Gate-Source cut-off voltage | V_{GSC} | $V_{DS}=10\text{V}, I_D=10\mu\text{A}$ | - 0.1 | | -1.5 | V |
| Mutual conductance | g_m | $V_{DS}=10\text{V}, I_D=0.5\text{mA}, f=1\text{kHz}$ | 4 | | | mS |
| | | $V_{DS}=10\text{V}, V_{GS}=0, f=1\text{kHz}$ | 4 | | | |
| Input capacitance | C_{iss} | $V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$ | | 14 | | pF |
| Feedback capacitance | C_{rss} | | | 3.5 | | pF |
| Noise voltage | NV | $V_{DS}=30\text{V}, I_D=1\text{mA}, G_v=80\text{dB}$ $R_g=100\text{k}\Omega, \text{Function}=\text{FLAT}$ | | 60 | | mV |

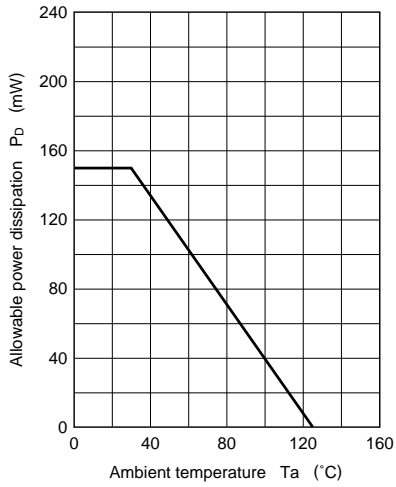
* I_{DSS} rank classification

| Rank | P | Q | R |
|----------------------|----------|--------|---------|
| $I_{DSS}(\text{mA})$ | 0.5 to 3 | 2 to 6 | 4 to 12 |
| Part number symbol | 1OP | 1OQ | 1OR |

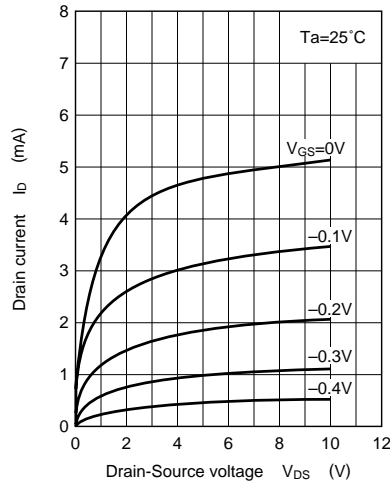
■ Marking (Example)



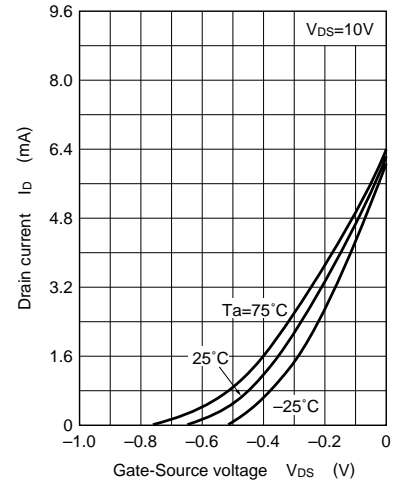
$P_D - T_a$



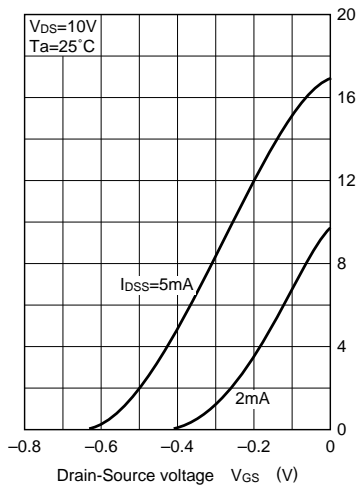
$I_D - V_{DS}$



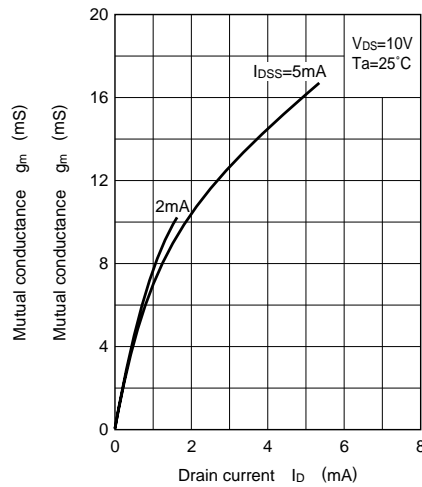
$I_D - V_{GS}$



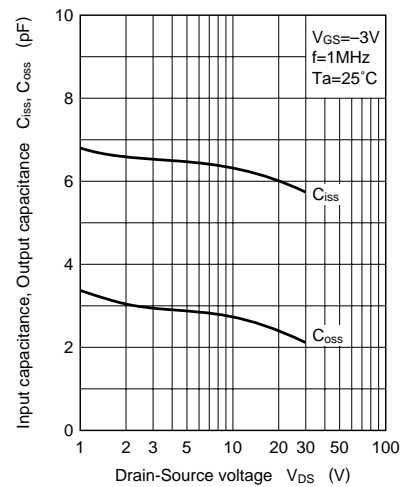
$g_m - V_{GS}$



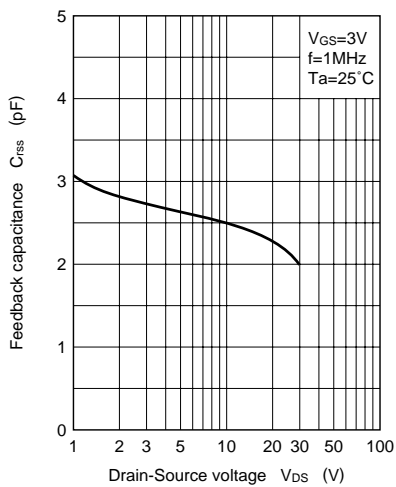
$g_m - I_D$



$C_{iss}, C_{oss} - V_{DS}$



$C_{rss} - V_{DS}$



NF - f

