2SK3426

Silicon N-Channel Junction

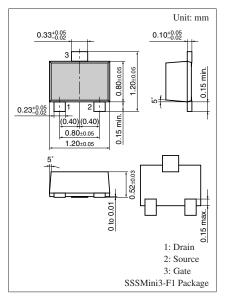
For impedance conversion in low frequency For electret capacitor microphone

■ Features

- ullet High mutual conductance g_m
- Low noise voltage of NV

■ Absolute Maximum Ratings $T_a = 25$ °C

| Parameter | Symbol | Rating | Unit |
|-------------------------------|--------------------|-------------|------|
| Drain-source voltage | V_{DSO} | 20 | V |
| Drain-gate voltage | V_{DGO} | 20 | V |
| Drain-source current | I_{DSO} | 2 | mA |
| Drain-gate current | I_{DGO} | 2 | mA |
| Gate-source current | I_{GSO} | 2 | mA |
| Allowable power dissipation | P_{D} | 100 | mW |
| Operating ambient temperature | T _{opr} | -20 to +80 | °C |
| Storage temperature | T_{stg} | -55 to +125 | °C |



Marking Symbol: 4E

■ Electrical Characteristics $T_a = 25$ °C ± 3 °C

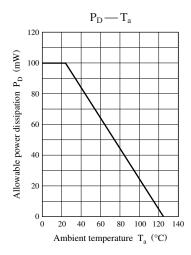
| Parameter | Symbol | Conditions | Min | Тур | Max | Unit |
|-------------------------|-------------------------|--|------|-------|-----|------|
| Drain current | I _D *1 | $V_{DS} = 2.0 \text{ V}, R_D = 2.2 \text{ k}\Omega \pm 1\%$ | 100 | | 330 | μΑ |
| | I_{DSS} | $V_{DS} = 2.0 \text{ V}, R_D = 2.2 \text{ k}\Omega \pm 1\%, V_{GS} = 0$ | 107 | | 310 | |
| Mutual conductance | g _m | $V_D = 2.0 \text{ V}, V_{GS} = 0, f = 1 \text{ kHz}$ | 660 | 1300 | | μS |
| Noise voltage | NV | $V_D = 2.0 \text{ V}, R_D = 2.2 \text{ k}\Omega \pm 1\%$ $C_O = 5 \text{ pF}, A\text{-Curve}$ | | | 8 | μV |
| Voltage gain | G_{V1} | $V_D = 2.0 \text{ V}, R_D = 2.2 \text{ k}\Omega \pm 1\%$ $C_O = 5 \text{ pF}, e_G = 10 \text{ mV}, f = 1 \text{ kHz}$ | -8.5 | -3.0 | | dB |
| | G_{V2} | $V_D = 12 \text{ V}, R_D = 2.2 \text{ k}\Omega \pm 1\%$ $C_O = 5 \text{ pF}, e_G = 10 \text{ mV}, f = 1 \text{ kHz}$ | -5.0 | - 0.5 | | |
| | G_{V3} | $V_D = 1.5 \text{ V}, R_D = 2.2 \text{ k}\Omega \pm 1\%$ $C_O = 5 \text{ pF}, e_G = 10 \text{ mV}, f = 1 \text{ kHz}$ | -9.0 | -3.5 | | |
| | $\Delta G_{V}.f ^{*2}$ | $V_D = 2.0 \text{ V}, R_D = 2.2 \text{ k}\Omega \pm 1\%$ $C_O = 5 \text{ pF}, e_G = 10 \text{ mV}, f = 1 \text{ kHz to } 70 \text{ Hz}$ | | 0 | 1.5 | |
| Voltage gain difference | $ G_{V2} - G_{V1} $ | | 0 | | 4.0 | dB |
| | $ G_{V1}-G_{V3} $ | | 0 | | 1.5 | |

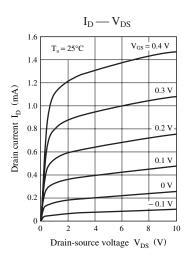
Note) $*1: I_D$ is assured for I_{DSS} .

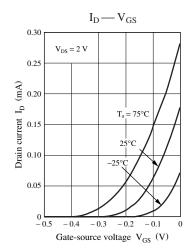
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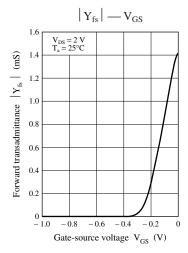
^{*2:} Δ | G_V . f | is assured for AQL 0.065%. (the measurement method is used by source-grounded circuit.)

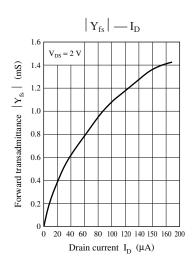
2SK3426 Panasonic











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