

**2SK2219**

## Capacitor Microphone Applications

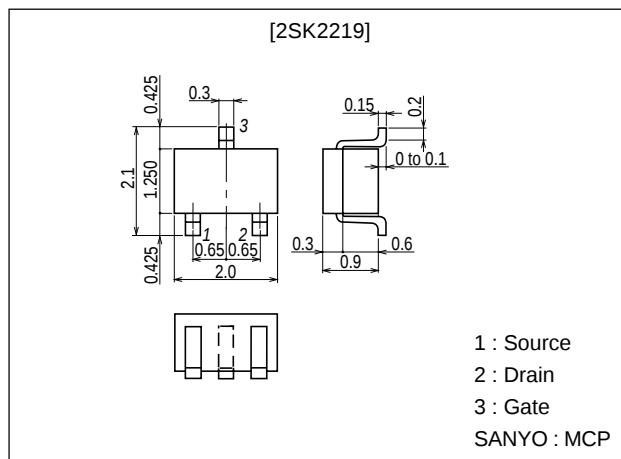
### Features

- Ultrasmall-sized package permitting 2SK2219-applied sets to be made small and slim.
- Especially suited for use in audio, telephone capacitor microphones.
- Excellent voltage characteristic.
- Excellent transient characteristic.
- Adoption of FBET process.

### Package Dimensions

unit:mm

2058A



### Specifications

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

| Parameter                   | Symbol    | Conditions | Ratings     | Unit |
|-----------------------------|-----------|------------|-------------|------|
| Gate-to-Drain Voltage       | $V_{GDO}$ |            | -20         | V    |
| Gate Current                | $I_G$     |            | 10          | mA   |
| Drain Current               | $I_D$     |            | 1           | mA   |
| Allowable Power Dissipation | $P_D$     |            | 100         | mW   |
| Junction Temperature        | $T_J$     |            | 150         | °C   |
| Storage Temperature         | $T_{stg}$ |            | -55 to +150 | °C   |

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

| Parameter                       | Symbol        | Conditions                          | Ratings |      |      | Unit    |
|---------------------------------|---------------|-------------------------------------|---------|------|------|---------|
|                                 |               |                                     | min     | typ  | max  |         |
| Gate-to-Drain Breakdown Voltage | $V_{(BR)GDO}$ | $I_G = -100\mu A$                   | -20     |      |      | V       |
| Zero-Gate Voltage Drain Current | $I_{DSS}$     | $V_{DS} = 5V, V_{GS} = 0$           | 140*    |      | 500* | $\mu A$ |
| Cutoff Voltage                  | $V_{GS(off)}$ | $V_{DS} = 5V, I_D = 1\mu A$         | -0.2    | -0.6 | -1.2 | V       |
| Forward Transfer Admittance     | $ y_{fs} $    | $V_{DS} = 5V, V_{GS} = 0, f = 1kHz$ | 0.5     | 1.2  |      | mS      |
| Input Capacitance               | $C_{iss}$     | $V_{DS} = 5V, V_{GS} = 0, f = 1MHz$ |         | 4.1  |      | pF      |
| Reverse Transfer Capacitance    | $C_{rss}$     | $V_{DS} = 5V, V_{GS} = 0, f = 1MHz$ |         | 0.88 |      | pF      |

\* : The 2SK2219 is classified by  $I_{DSS}$  as follows : (unit :  $\mu A$ )

|     |    |     |     |    |     |     |    |     |
|-----|----|-----|-----|----|-----|-----|----|-----|
| 140 | 21 | 240 | 210 | 22 | 350 | 320 | 23 | 500 |
|-----|----|-----|-----|----|-----|-----|----|-----|

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Marking : D

 $I_{DSS}$  rank : 21, 22, 23

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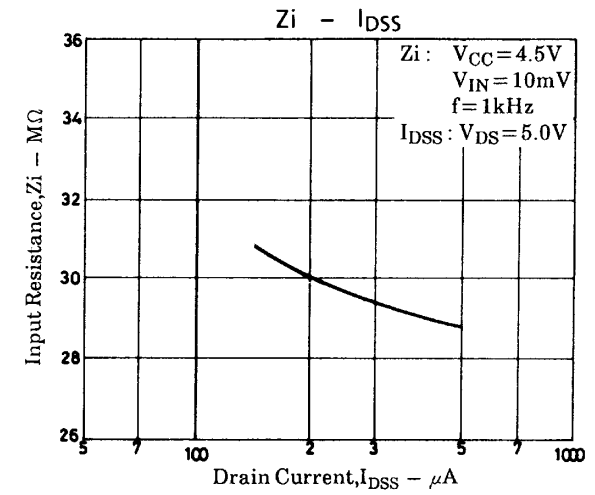
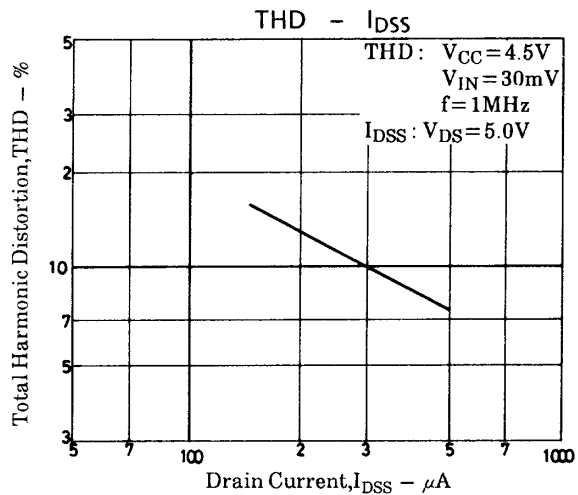
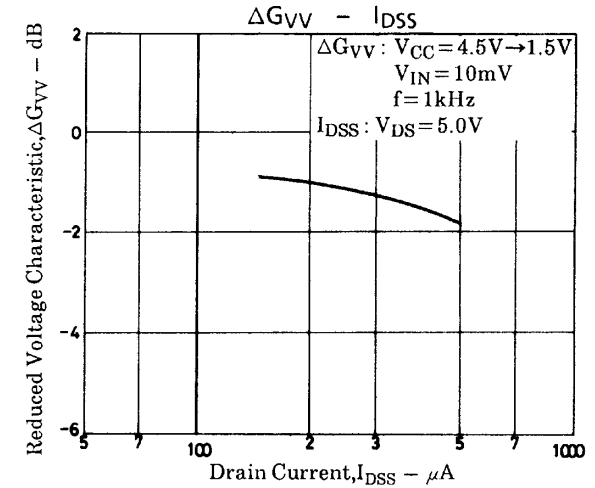
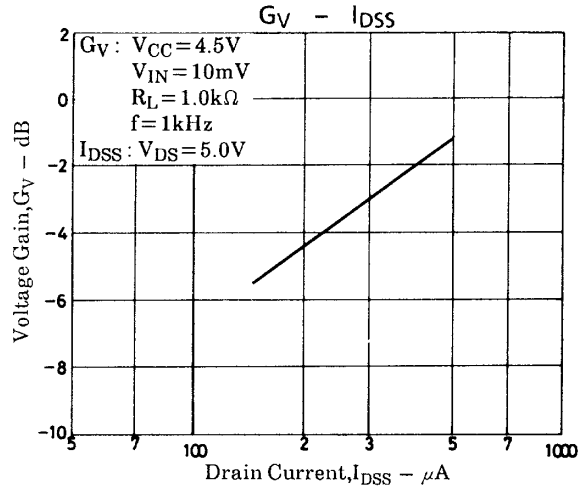
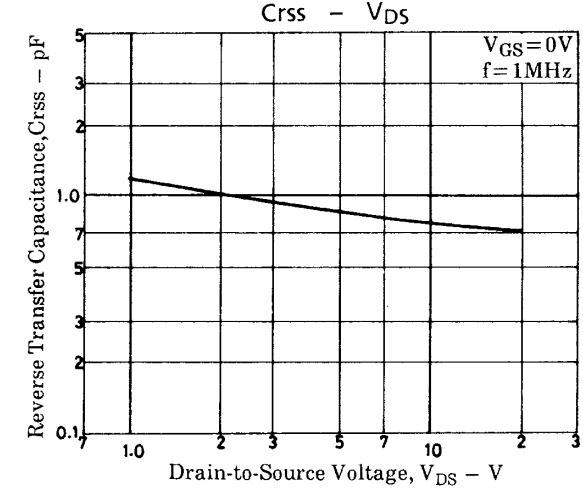
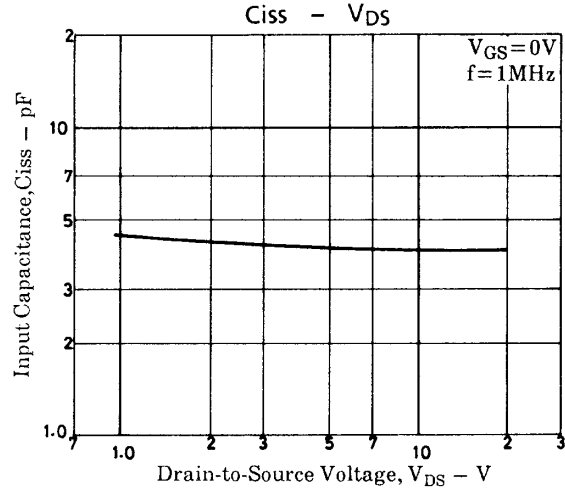
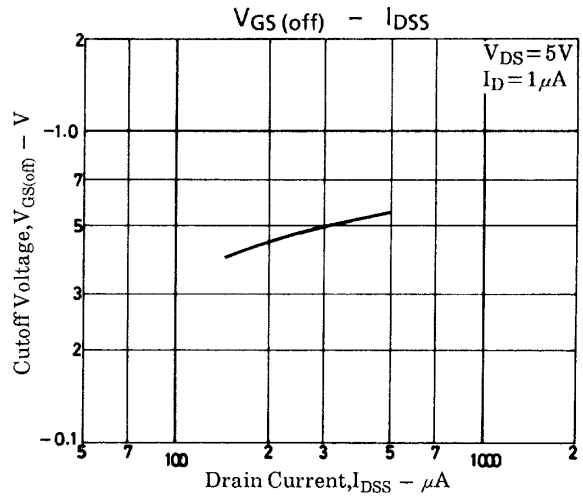
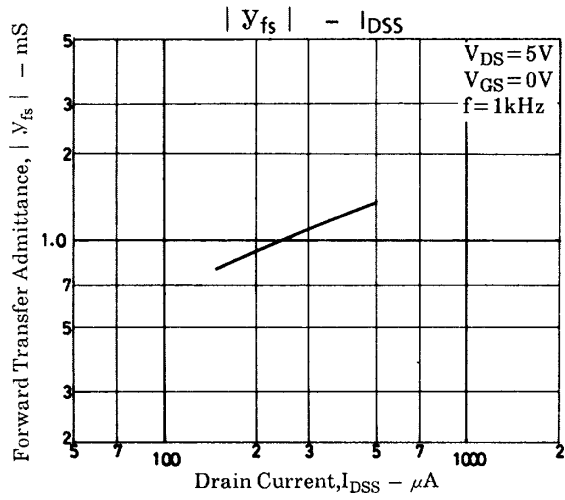
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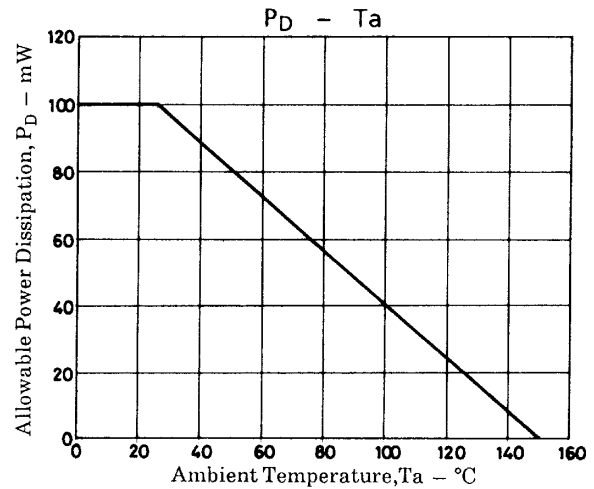
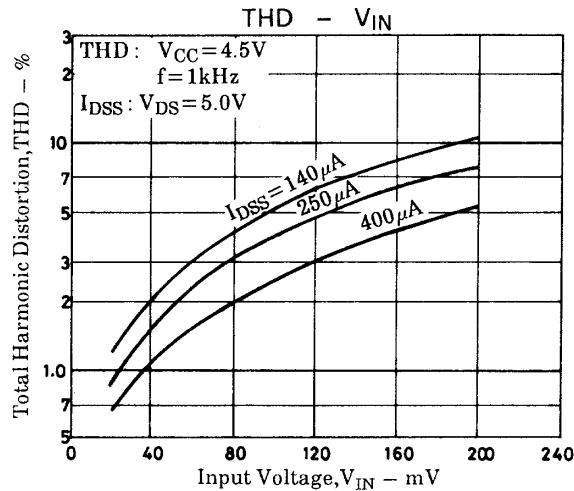
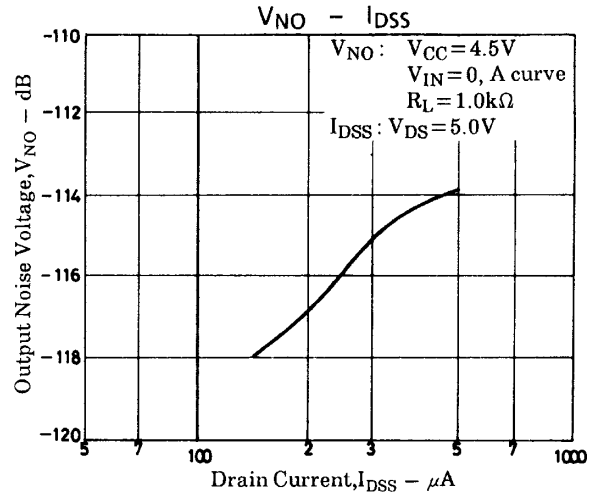
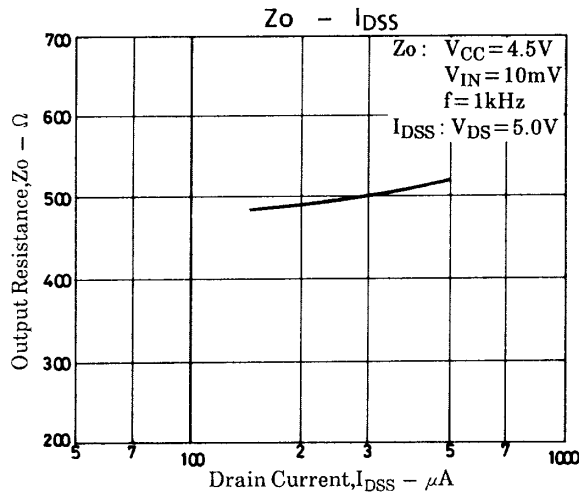
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