

**2SK1068**

Impedance Conversion Applications

Applications

- Impedance conversion.
- Infrared sensor.

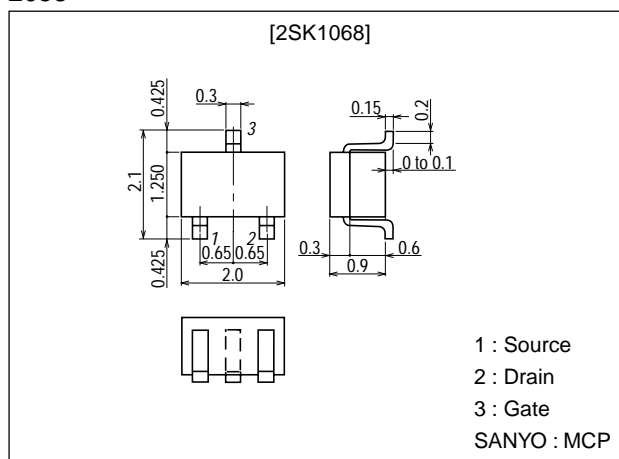
Features

- Small I_{GSS} .
- Small C_{rss} .
- Ultrasmall-sized package permitting 2SK1068-applied sets to be made smaller and slimmer.

Package Dimensions

unit:mm

2058



Specifications

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

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|-----------|------------|-------------|------------------|
| Drain-to-Source Voltage | V_{DSX} | | 40 | V |
| Gate-to-Drain Voltage | V_{GDS} | | -40 | 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 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | | -55 to +150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------------|---------------|--|---------|------|------|---------------|
| | | | min | typ | max | |
| Gate-to-Drain Breakdown Voltage | $V_{(BR)GDS}$ | $I_G = -10\mu\text{A}$, $V_{DS} = 0$ | -40 | | | V |
| Gate-to-Source Leakage Current | I_{GSS} | $V_{GS} = -20\text{V}$, $V_{DS} = 0$ | | | -500 | pA |
| Zero-Gate Voltage Drain Current | I_{DSS} | $V_{DS} = 10\text{V}$, $V_{GS} = 0$ | 30* | | 300* | μA |
| Cutoff Voltage | $V_{GS(off)}$ | $V_{DS} = 10\text{V}$, $I_D = 1\mu\text{A}$ | -0.4 | -1.5 | -4.0 | V |
| Forward Transfer Admittance | $ y_{fs} $ | $V_{DS} = 10\text{V}$, $V_{GS} = 0$, $f = 1\text{kHz}$ | 0.05 | 0.13 | | mS |

* : The 2SK1068 is classified by I_{DSS} as follows (unit : μA) :

| | | | | | | | | |
|----|----|----|----|----|-----|-----|----|-----|
| 30 | 10 | 80 | 60 | 11 | 180 | 150 | 12 | 300 |
|----|----|----|----|----|-----|-----|----|-----|

(Note) Marking : B

 I_{DSS} rank : 10, 11, 12

• For CP package version, use the 2SK545.

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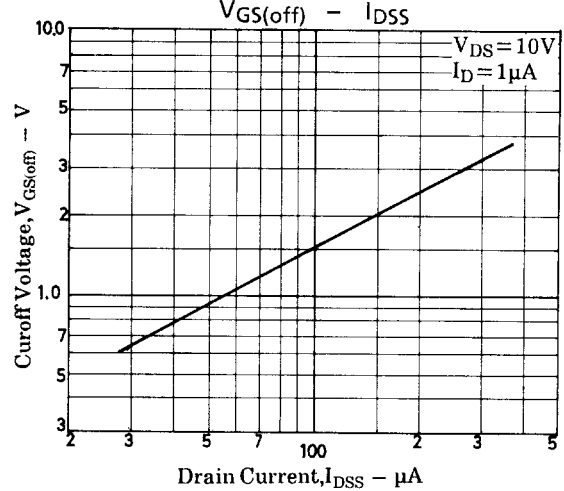
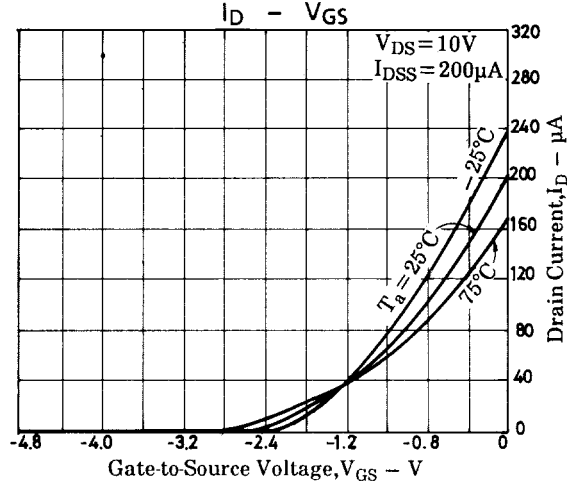
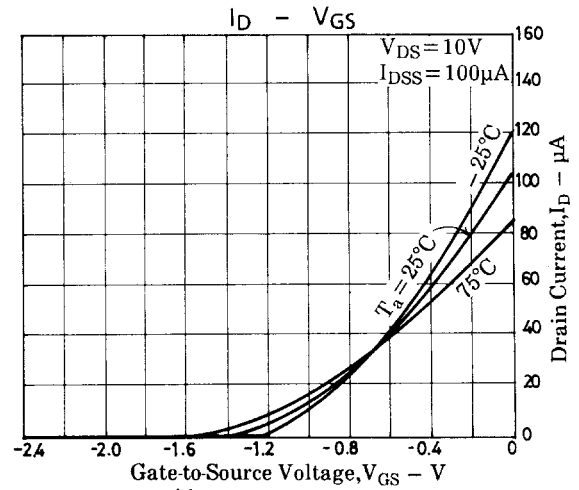
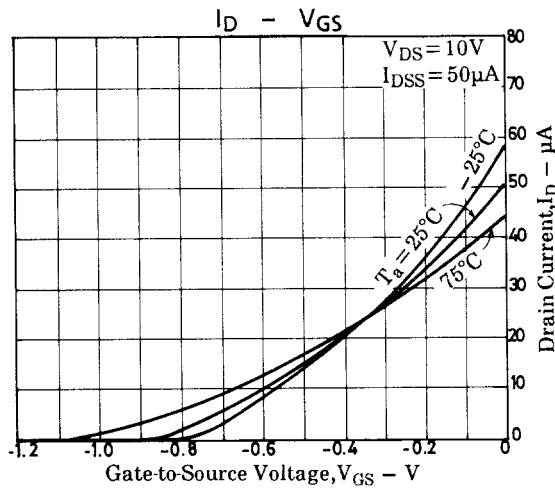
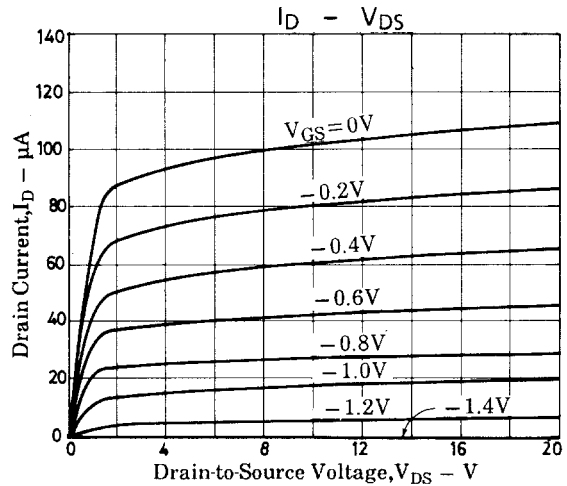
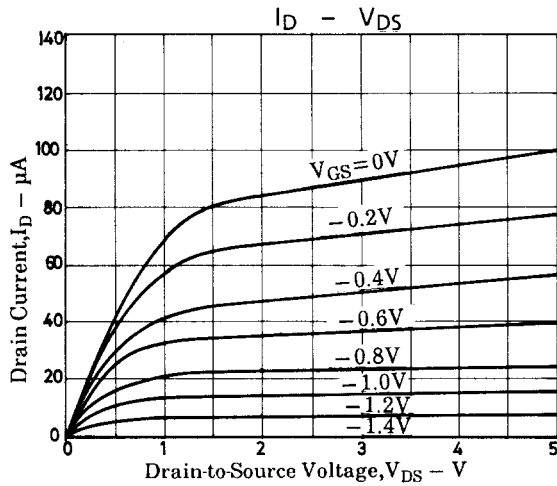
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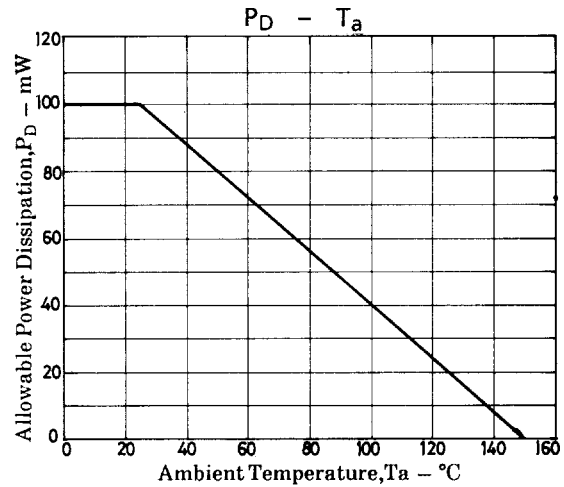
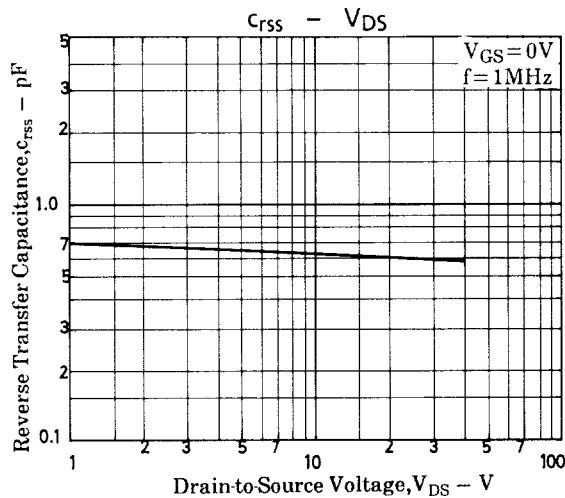
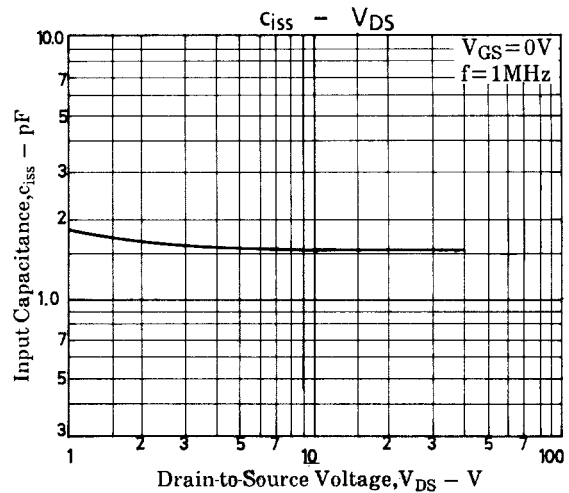
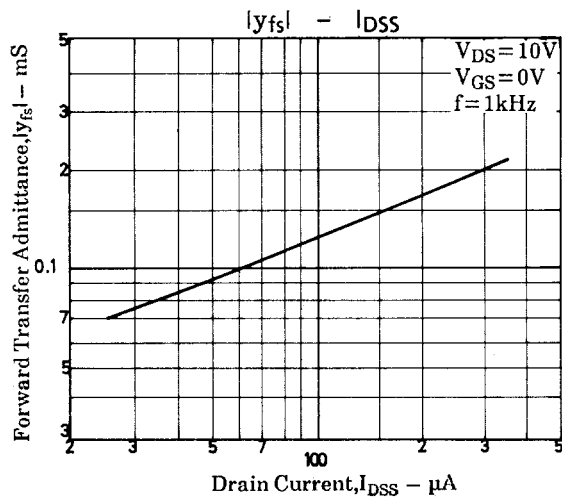
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2SK1068

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| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|-----------|--------------------------------|---------|------|
| Input Capacitance | C_{iss} | $V_{DS}=10V, V_{GS}=0, f=1MHz$ | 1.7 | pF |
| Reverse Transfer Capacitance | C_{rss} | $V_{DS}=10V, V_{GS}=0, f=1MHz$ | 0.7 | pF |





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