

**SANYO****2SK2076****Impedance Converter Applications****Applications**

- Low-frequency general-purpose amplifier applications.
- Impedance conversion.
- Infrared sensor.

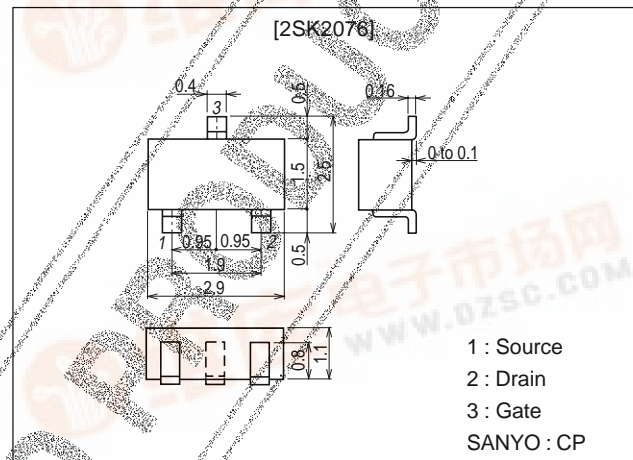
**Features**

- Small  $I_{GSS}$ .
- Small  $C_{iss}$ .

**Package Dimensions**

unit:mm

2050A

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

| Parameter                   | Symbol    | Conditions | Ratings     | Unit             |
|-----------------------------|-----------|------------|-------------|------------------|
| Drain-to-Source Voltage     | $V_{DSX}$ |            | 30          | V                |
| Gate-to-Drain Voltage       | $V_{GDS}$ |            | -30         | V                |
| Gate Current                | $I_G$     |            | 10          | mA               |
| Drain Current               | $I_D$     |            | 5           | mA               |
| Allowable Power Dissipation | $P_D$     |            | 150         | 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 | $V_{(BR)GDS}$ | $I_G = -10\mu\text{A}$ , $V_{DS} = 0$                    | -30     |       |      | V    |
| Zero-Gate Voltage Drain Current | $I_{DSS}$     | $V_{DS} = 10\text{V}$ , $V_{GS} = 0$                     | 0.4*    |       | 1.1* | mA   |
| Gate-to-Source Leakage Current  | $I_{GSS}$     | $V_{GS} = -20\text{V}$ , $V_{DS} = 0$                    |         |       | -1.0 | nA   |
| Cutoff Voltage                  | $V_{GS(off)}$ | $V_{DS} = 10\text{V}$ , $I_D = 1\mu\text{A}$             | -0.3    | -0.75 | -1.5 | V    |
| Forward Transfer Admittance     | $ y_{fs} $    | $V_{DS} = 10\text{V}$ , $V_{GS} = 0$ , $f = 1\text{kHz}$ | 1.1     | 1.8   |      | mS   |

\* : The 2SK2076 is classified by  $I_{DSS}$  as follows : (unit : mA).

|     |    |     |     |    |     |
|-----|----|-----|-----|----|-----|
| 0.4 | 14 | 0.8 | 0.6 | 15 | 1.1 |
|-----|----|-----|-----|----|-----|

Note) Marking : H  
 $I_{DSS}$  rank : 14, 15  
 For MCP package version, use the 2SK2091.

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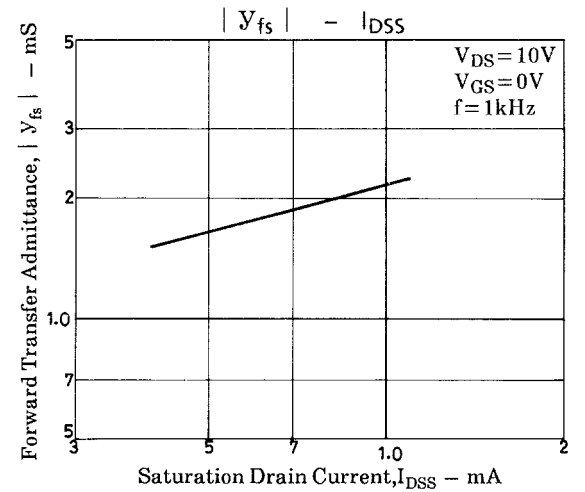
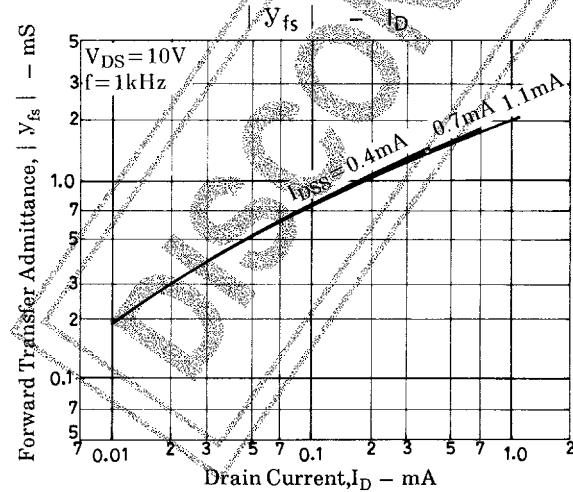
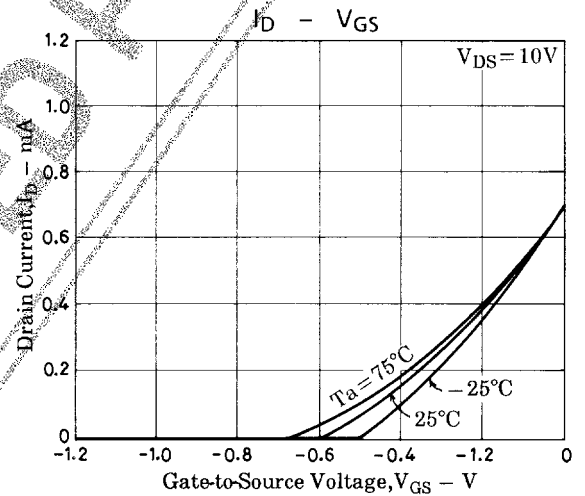
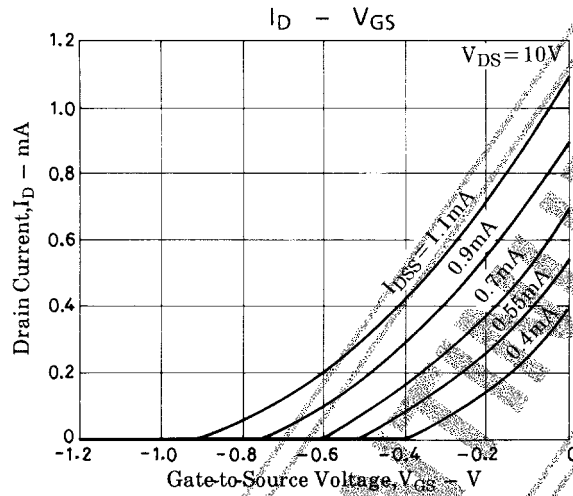
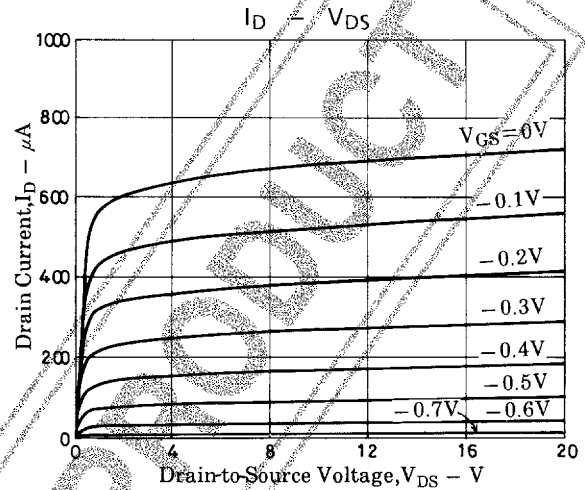
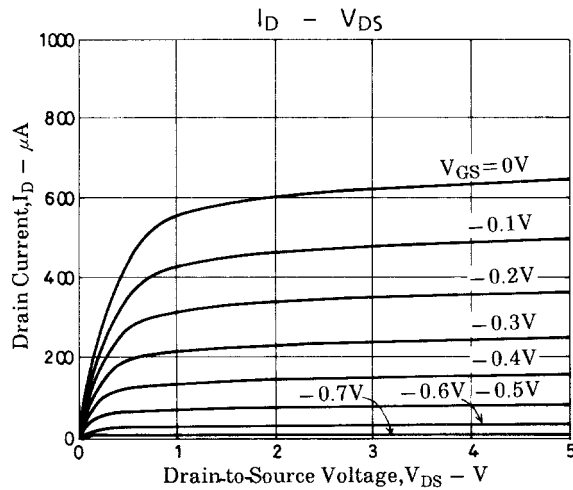
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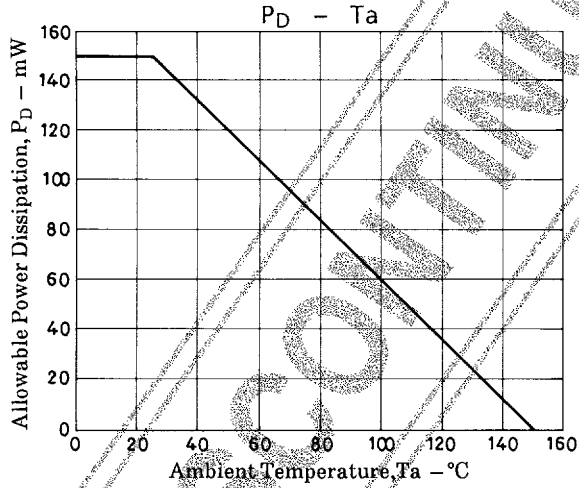
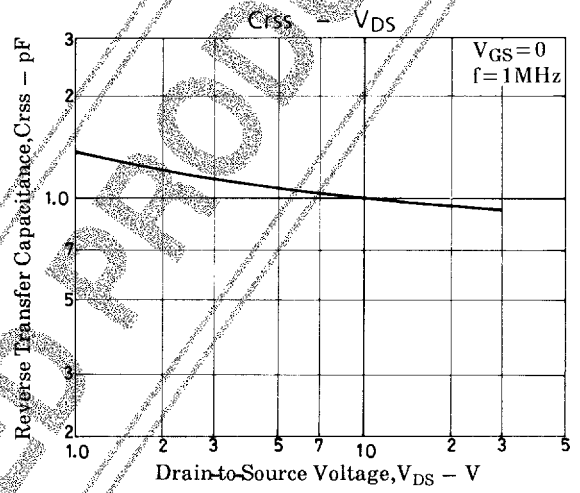
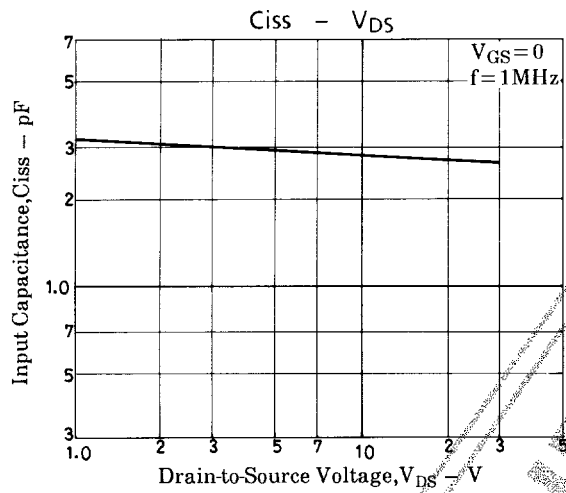
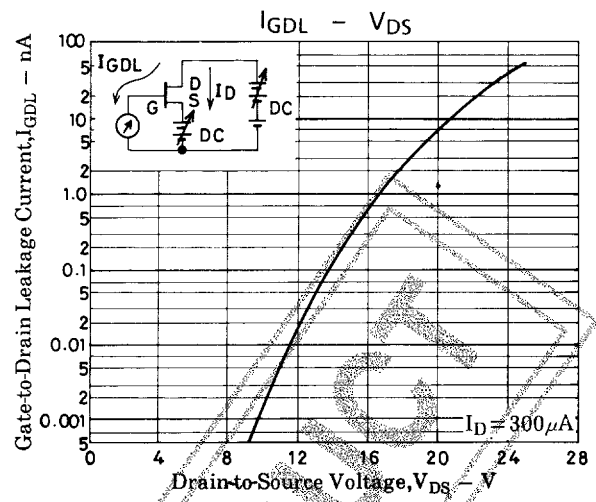
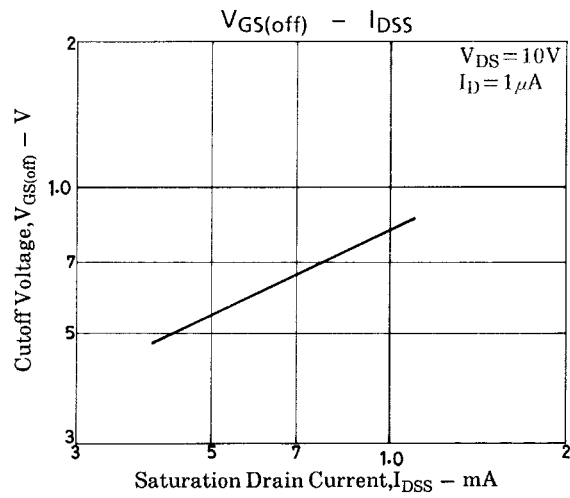
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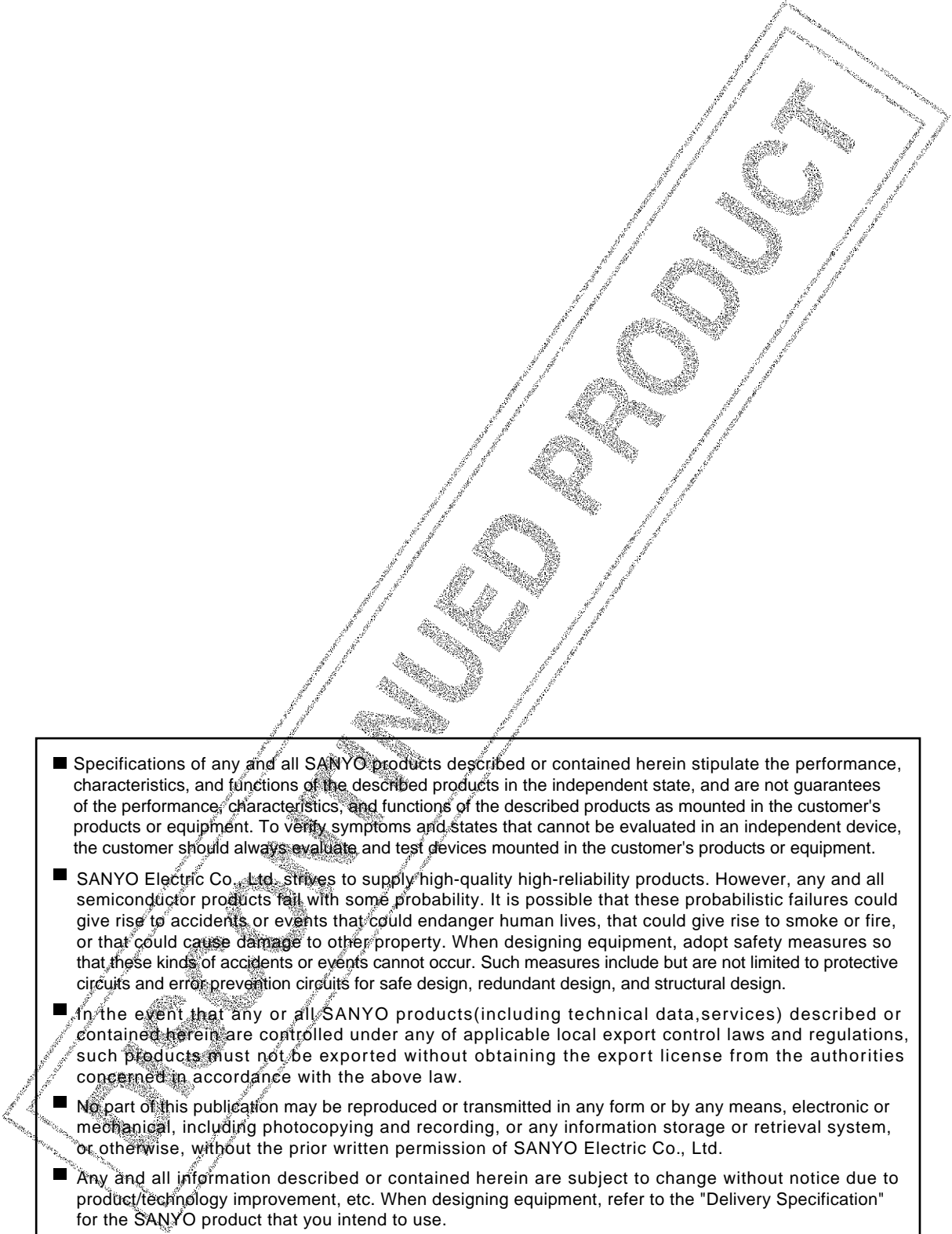
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| Parameter                    | Symbol | Conditions                     | Ratings |     |     | Unit |
|------------------------------|--------|--------------------------------|---------|-----|-----|------|
|                              |        |                                | min     | typ | max |      |
| Input Capacitance            | Ciss   | $V_{DS}=10V, V_{GS}=0, f=1MHz$ |         | 2.9 |     | pF   |
| Reverse Transfer Capacitance | Crss   | $V_{DS}=10V, V_{GS}=0, f=1MHz$ |         | 1.1 |     | pF   |



## 2SK2076



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