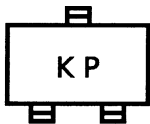


2SK2035

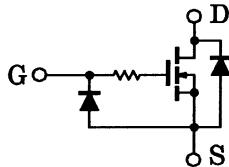
High Speed Switching Applications  
Analog Switching Applications

- High input impedance.
- Low gate threshold voltage:  $V_{th} = 0.5\sim1.5\text{ V}$
- Excellent switching times:  $t_{on} = 0.16\text{ }\mu\text{s (typ.)}$   
 $t_{off} = 0.15\text{ }\mu\text{s (typ.)}$
- Small package
- Enhancement-mode

Marking



Equivalent Circuit

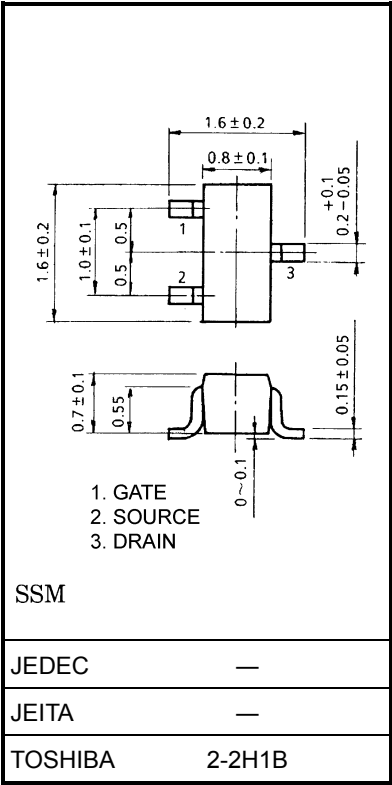


Maximum Ratings (Ta = 25°C)

| Characteristics           | Symbol    | Rating  | Unit |
|---------------------------|-----------|---------|------|
| Drain-source voltage      | $V_{DS}$  | 20      | V    |
| Gate-source voltage       | $V_{GSS}$ | 10      | V    |
| Drain current             | $I_D$     | 100     | mA   |
| Drain power dissipation   | $P_D$     | 100     | mW   |
| Channel temperature       | $T_{ch}$  | 150     | °C   |
| Storage temperature range | $T_{stg}$ | -55~150 | °C   |

Note: This transistor is electrostatic sensitive device. Please handle with caution.

Unit: mm

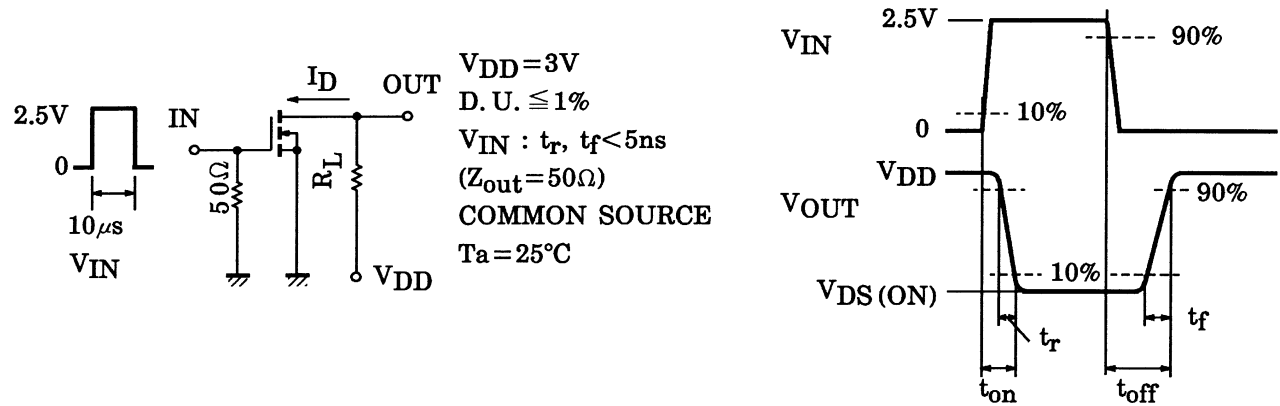


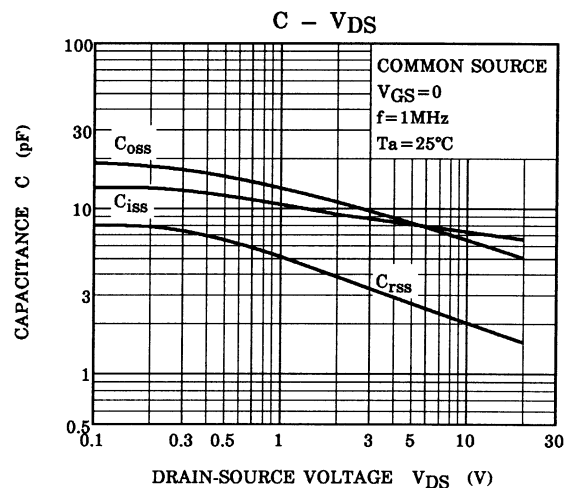
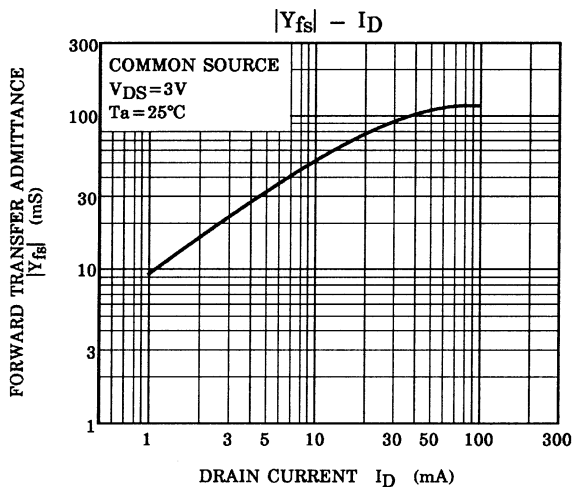
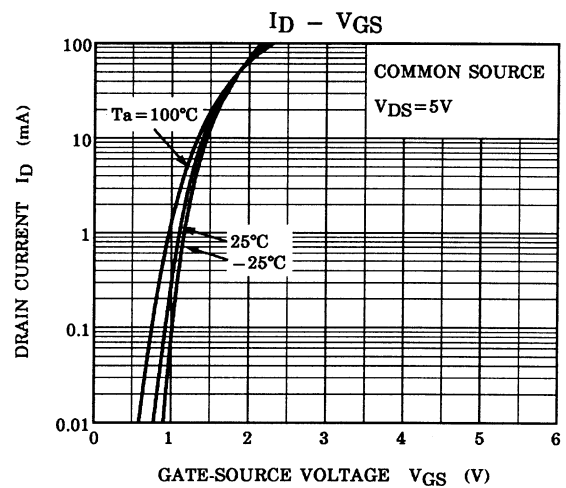
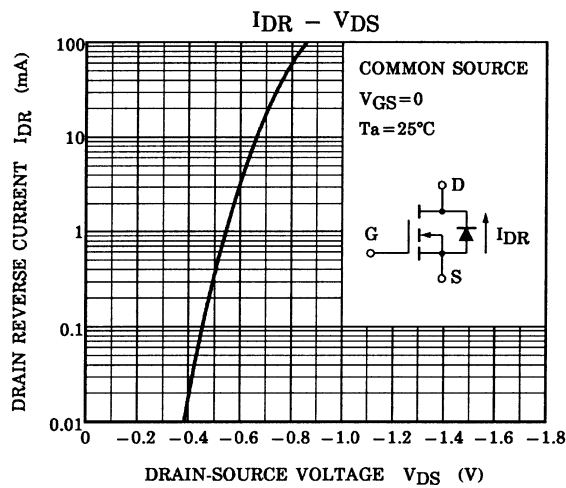
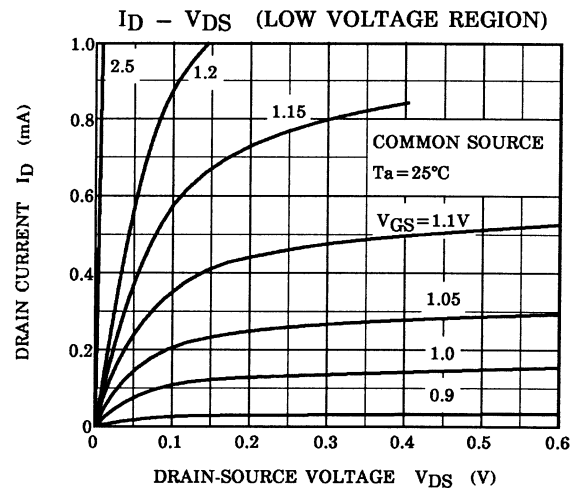
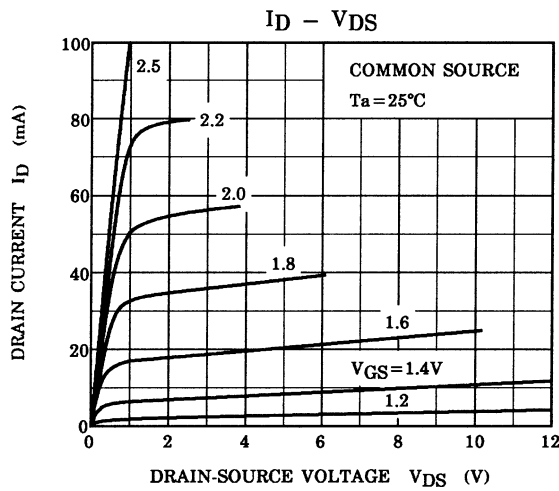
Weight: 2.4 mg (typ.)

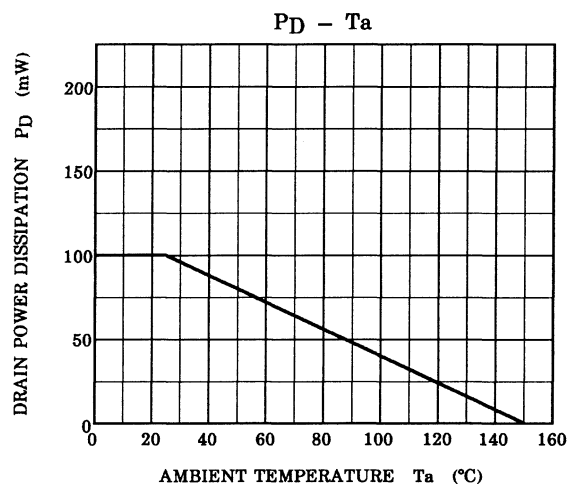
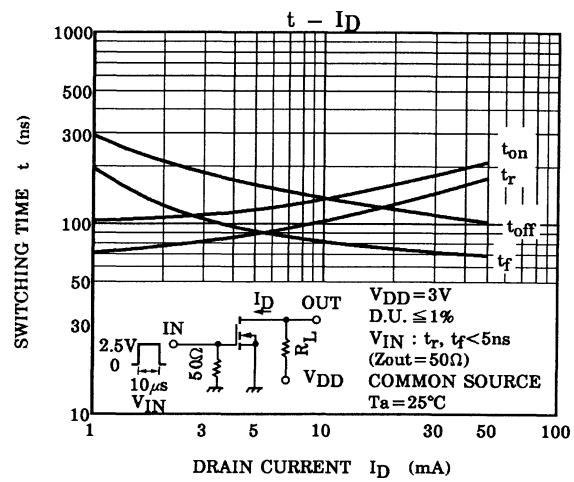
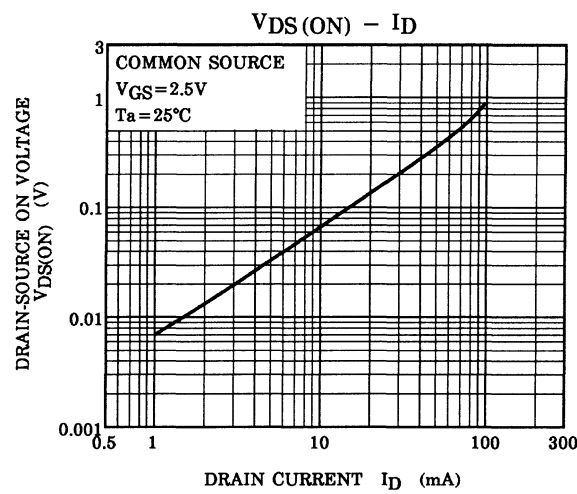
Electrical Characteristics (Ta = 25°C)

| Characteristics                | Symbol        | Test Condition                                                          | Min | Typ. | Max | Unit          |
|--------------------------------|---------------|-------------------------------------------------------------------------|-----|------|-----|---------------|
| Gate leakage current           | $I_{GSS}$     | $V_{GS} = 10\text{ V}, V_{DS} = 0$                                      | —   | —    | 1   | $\mu\text{A}$ |
| Drain-source breakdown voltage | $V_{(BR)DSS}$ | $I_D = 100\text{ }\mu\text{A}, V_{GS} = 0$                              | 20  | —    | —   | V             |
| Drain cut-off current          | $I_{DSS}$     | $V_{DS} = 20\text{ V}, V_{GS} = 0$                                      | —   | —    | 1   | $\mu\text{A}$ |
| Gate threshold voltage         | $V_{th}$      | $V_{DS} = 3\text{ V}, I_D = 0.1\text{ mA}$                              | 0.5 | —    | 1.5 | V             |
| Forward transfer admittance    | $ Y_{fs} $    | $V_{DS} = 3\text{ V}, I_D = 10\text{ mA}$                               | 25  | 50   | —   | mS            |
| Drain-source ON resistance     | $R_{DS(ON)}$  | $I_D = 10\text{ mA}, V_{GS} = 2.5\text{ V}$                             | —   | 8    | 12  | $\Omega$      |
| Input capacitance              | $C_{iss}$     | $V_{DS} = 3\text{ V}, V_{GS} = 0, f = 1\text{ MHz}$                     | —   | 8.5  | —   | pF            |
| Reverse transfer capacitance   | $C_{rss}$     | $V_{DS} = 3\text{ V}, V_{GS} = 0, f = 1\text{ MHz}$                     | —   | 3.3  | —   | pF            |
| Output capacitance             | $C_{oss}$     | $V_{DS} = 3\text{ V}, V_{GS} = 0, f = 1\text{ MHz}$                     | —   | 9.3  | —   | pF            |
| Switching time                 | Turn-on time  | $V_{DD} = 3\text{ V}, I_D = 10\text{ mA}, V_{GS} = 0 \sim 2.5\text{ V}$ | —   | 0.16 | —   | $\mu\text{s}$ |
|                                | Turn-off time | $V_{DD} = 3\text{ V}, I_D = 10\text{ mA}, V_{GS} = 0 \sim 2.5\text{ V}$ | —   | 0.15 | —   |               |

Switching Time Test Circuit







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