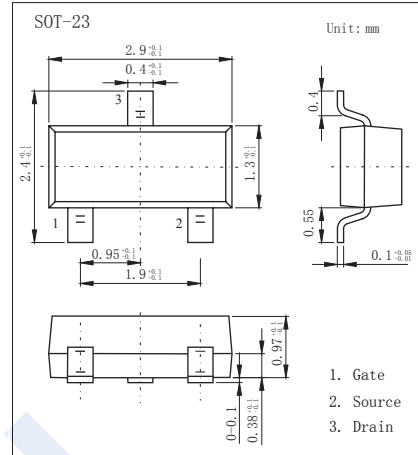
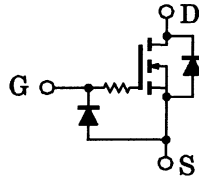


N-Channel MOSFET

2SK2033

■ Features

- $V_{DS} (V) = 20V$
- $I_D = 100mA$
- $R_{DS(ON)} < 12 \Omega$ ($V_{GS} = 2.5V$)
- Low threshold voltage: $V_{th} = 0.5 \sim 1.5 V$



■ Absolute Maximum Ratings $T_a = 25^\circ C$

| Parameter | Symbol | Rating | Unit |
|---------------------------|-----------|------------|------------|
| Drain-Source Voltage | V_{DS} | 20 | V |
| Gate-Source Voltage | V_{GS} | ± 10 | |
| Continuous Drain Current | I_D | 100 | mA |
| Power Dissipation | P_D | 200 | mW |
| Junction Temperature | T_J | 150 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -55 to 150 | |

■ Electrical Characteristics $T_a = 25^\circ C$

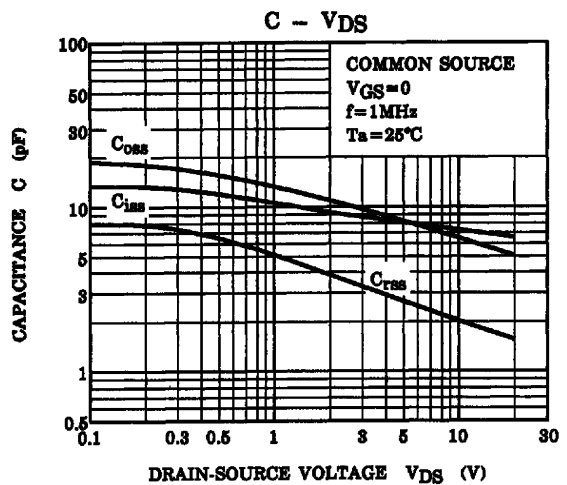
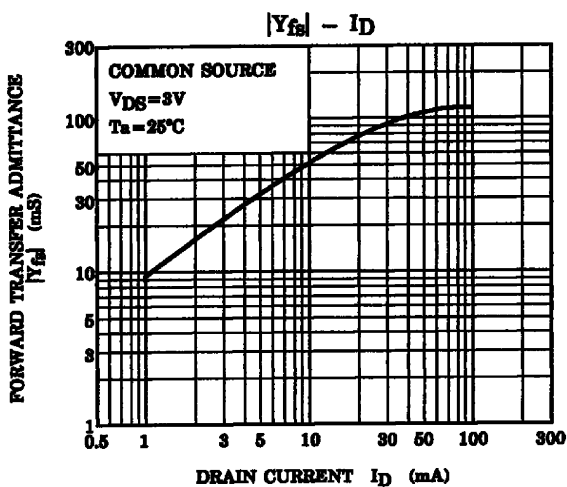
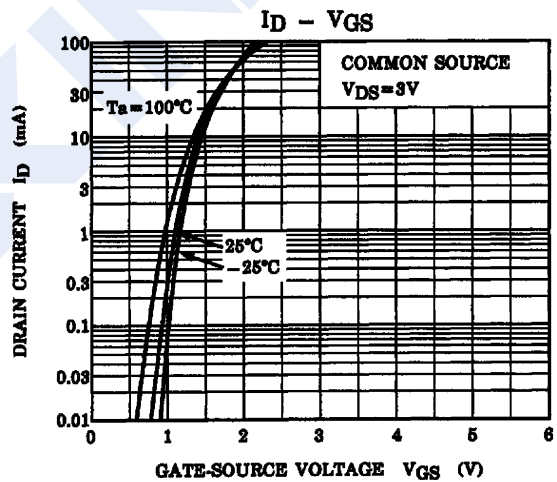
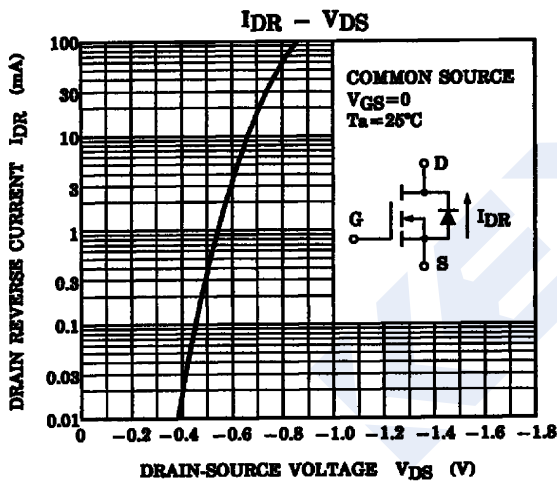
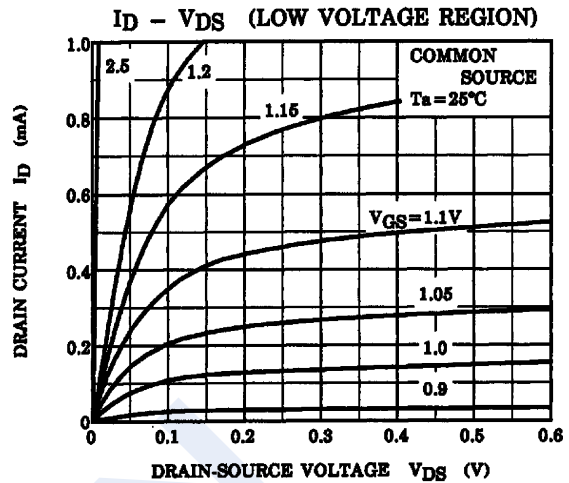
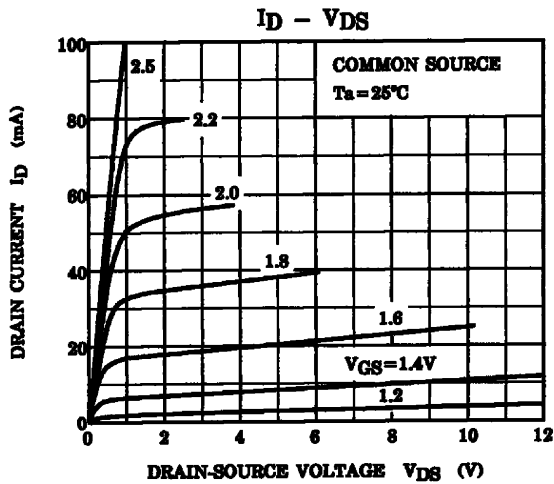
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|-----------------------------------|--------------|-------------------------------------------------|-----|-----|---------|----------|
| Drain-Source Breakdown Voltage | V_{DSS} | $I_D = 250 \mu A, V_{GS} = 0V$ | 20 | | | V |
| Zero Gate Voltage Drain Current | I_{DSS} | $V_{DS} = 20V, V_{GS} = 0V$ | | | 1 | μA |
| Gate-Body Leakage Current | I_{GSS} | $V_{DS} = 0V, V_{GS} = \pm 10V$ | | | ± 1 | μA |
| Gate threshold voltage | $V_{GS(th)}$ | $V_{DS} = 3V, I_D = 100 \mu A$ | 0.5 | | 1.5 | V |
| Static Drain-Source On-Resistance | $R_{DS(on)}$ | $V_{GS} = 2.5V, I_D = 10mA$ | | | 12 | Ω |
| Forward Transconductance | g_{FS} | $V_{DS} = 3V, I_D = 10mA$ | 25 | 50 | | ms |
| Input Capacitance | C_{iss} | $V_{GS} = 0V, V_{DS} = 3V, f = 1MHz$ | | 8.5 | | pF |
| Output Capacitance | C_{oss} | | | 3.3 | | |
| Reverse Transfer Capacitance | C_{rss} | | | 9.3 | | |
| Turn-On DelayTime | $t_{d(on)}$ | $V_{GS} = 0 \sim 2.5V, V_{DS} = 3V, I_D = 10mA$ | | 160 | | ns |
| Turn-Off DelayTime | $t_{d(off)}$ | | | 150 | | |

■ Marking

| Marking | KP |
|---------|----|
| | |

N-Channel MOSFET 2SK2033

■ Typical Characteristics



N-Channel MOSFET 2SK2033

■ Typical Characteristics

