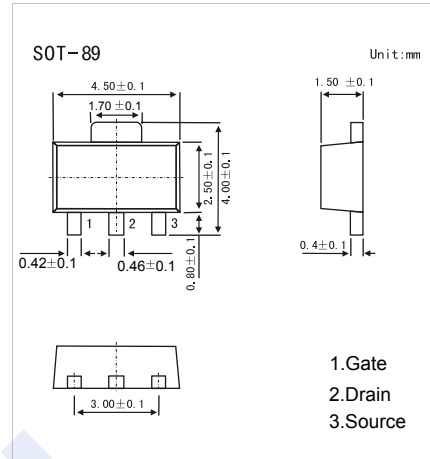
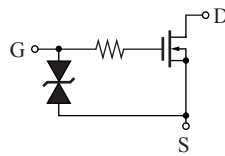


## N-Channel MOSFET

### 2SK2211

#### ■ Features

- $V_{DS} (V) = 30V$
- $I_D = 1A$
- $R_{DS(ON)} < 0.75 \Omega$  ( $V_{GS} = 4V$ )
- $R_{DS(ON)} < 0.6 \Omega$  ( $V_{GS} = 10V$ )



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

| Parameter                 | Symbol    | Rating     | Unit       |
|---------------------------|-----------|------------|------------|
| Drain-Source Voltage      | $V_{DS}$  | 30         | V          |
| Gate-Source Voltage       | $V_{GS}$  | $\pm 20$   |            |
| Continuous Drain Current  | $I_D$     | 1          | A          |
| Pulsed Drain Current      | $I_{DM}$  | 2          |            |
| Power Dissipation         | $P_D$     | 1          | W          |
| 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    | $V_{DSS}$    | $I_D = 100 \mu A, V_{GS} = 0V$                            | 30       |     |          | V        |
| Gate to Source voltage            | $V_{GSS}$    | $I_{GS} = 100 \mu A, V_{DS} = 0V$                         | $\pm 20$ |     |          |          |
| Zero Gate Voltage Drain Current   | $I_{DSS}$    | $V_{DS} = 25V, V_{GS} = 0V$                               |          |     | 10       | $\mu A$  |
| Gate-Body Leakage Current         | $I_{GSS}$    | $V_{DS} = 0V, V_{GS} = \pm 15V$                           |          |     | $\pm 10$ | $\mu A$  |
| Gate threshold voltage            | $V_{GS(th)}$ | $V_{DS} = 5V, I_D = 1mA$                                  | 0.8      |     | 2        | V        |
| Static Drain-Source On-Resistance | $R_{DS(on)}$ | $V_{GS} = 4V, I_D = 0.5A$                                 |          |     | 0.75     | $\Omega$ |
|                                   |              | $V_{GS} = 10V, I_D = 0.5A$                                |          |     | 0.6      |          |
| Forward Transconductance          | $g_{FS}$     | $V_{DS} = 10V, I_D = 0.5A$                                | 0.5      |     |          | S        |
| Input Capacitance                 | $C_{iss}$    | $V_{GS} = 0V, V_{DS} = 10V, f = 1MHz$                     |          | 87  |          | pF       |
| Output Capacitance                | $C_{oss}$    |   |          | 69  |          |          |
| Reverse Transfer Capacitance      | $C_{rss}$    |   |          | 23  |          |          |
| Turn-On DelayTime                 | $t_{d(on)}$  | $V_{GS} = 10V, V_{DS} = 10V, I_D = 0.5A, R_L = 10 \Omega$ |          | 12  |          | ns       |
| Turn-Off DelayTime                | $t_{d(off)}$ |   |          | 60  |          |          |
| Turn-Off Fall Time                | $t_f$        |   |          | 160 |          |          |

#### ■ Marking

|         |    |
|---------|----|
| Marking | 2M |
|---------|----|

## N-Channel MOSFET 2SK2211

### Typical Characteristics

