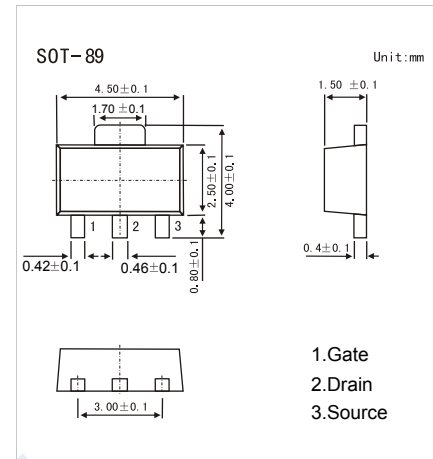
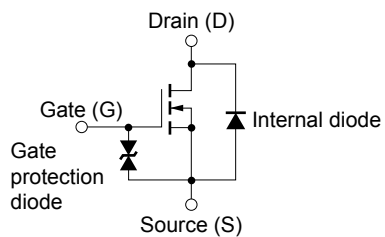


## N-Channel MOSFET

### 2SK2110

#### ■ Features

- $V_{DS} (V) = 100V$
- $I_D = 0.5 A$
- $R_{DS(ON)} < 1.2 \Omega$  ( $V_{GS} = 10V$ )
- $R_{DS(ON)} < 1.5 \Omega$  ( $V_{GS} = 4V$ )



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

| Parameter                     | Symbol    | Rating     | Unit       |
|-------------------------------|-----------|------------|------------|
| Drain-Source Voltage          | $V_{DS}$  | 100        | V          |
| Gate-Source Voltage           | $V_{GS}$  | $\pm 20$   |            |
| Continuous Drain Current      | $I_D$     | 0.5        | A          |
| Pulsed Drain Current (Note.1) | $I_{DM}$  | 1          |            |
| Power Dissipation             | $P_D$     | 2          | W          |
| Junction Temperature          | $T_J$     | 150        | $^\circ C$ |
| Storage Temperature Range     | $T_{stg}$ | -55 to 150 |            |

Note.1:  $PW \leq 10ms$ , Duty Cycle  $\leq 50\%$

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

| Parameter                         | Symbol        | Test Conditions                                                                                 | Min | Typ | Max      | Unit     |
|-----------------------------------|---------------|-------------------------------------------------------------------------------------------------|-----|-----|----------|----------|
| Drain-Source Breakdown Voltage    | $V_{DSS}$     | $I_D = 250 \mu A$ , $V_{GS} = 0V$                                                               | 100 |     |          | V        |
| Zero Gate Voltage Drain Current   | $I_{DSS}$     | $V_{DS} = 100V$ , $V_{GS} = 0V$                                                                 |     |     | 1        | $\mu A$  |
| Gate-Body Leakage Current         | $I_{GSS}$     | $V_{DS} = 0V$ , $V_{GS} = \pm 20V$                                                              |     |     | $\pm 10$ | $\mu A$  |
| Gate Cutt-off Voltage             | $V_{GS(off)}$ | $V_{DS} = 10V$ , $I_D = 1mA$                                                                    | 0.8 |     | 2        | V        |
| Static Drain-Source On-Resistance | $R_{DS(on)}$  | $V_{GS} = 10V$ , $I_D = 0.3A$                                                                   |     |     | 1.2      | $\Omega$ |
|                                   |               | $V_{GS} = 4V$ , $I_D = 0.3A$                                                                    |     |     | 1.5      |          |
| Forward Transconductance          | $g_{FS}$      | $V_{DS} = 10V$ , $I_D = 0.3A$                                                                   | 0.4 |     |          | S        |
| Input Capacitance                 | $C_{iss}$     | $V_{GS} = 0V$ , $V_{DS} = 10V$ , $f = 1MHz$                                                     |     | 100 |          | pF       |
| Output Capacitance                | $C_{oss}$     |                                                                                                 |     | 38  |          |          |
| Reverse Transfer Capacitance      | $C_{rss}$     |                                                                                                 |     | 10  |          |          |
| Turn-On DelayTime                 | $t_{d(on)}$   | $V_{GS(on)} = 10V$ , $V_{DS} = 25V$ ,<br>$I_D = 300 mA$ , $R_L = 83 \Omega$ , $R_G = 10 \Omega$ |     | 2   |          | ns       |
| Turn-On Rise Time                 | $t_r$         |                                                                                                 |     | 1.3 |          |          |
| Turn-Off DelayTime                | $t_{d(off)}$  |                                                                                                 |     | 38  |          |          |
| Turn-Off Fall Time                | $t_f$         |                                                                                                 |     | 13  |          |          |

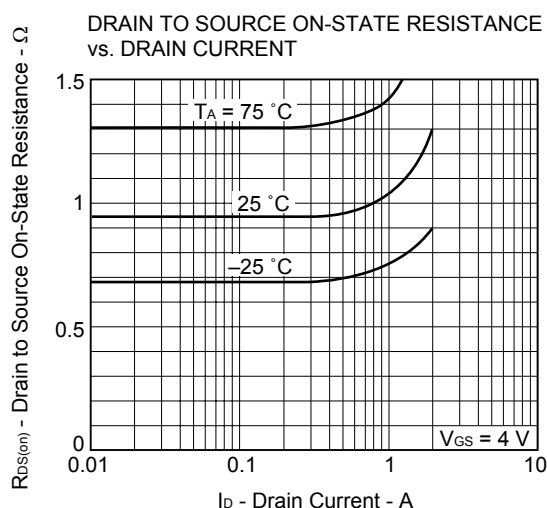
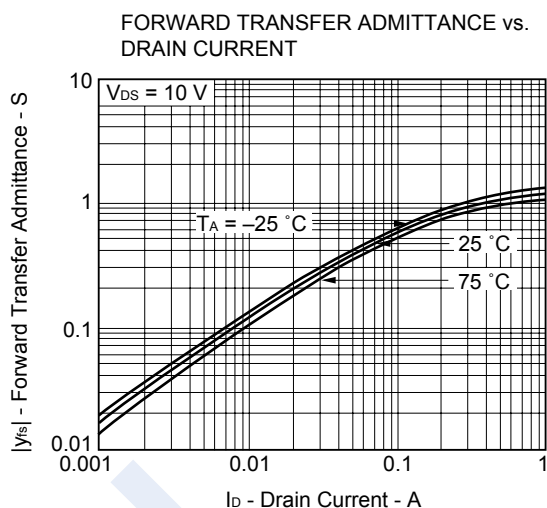
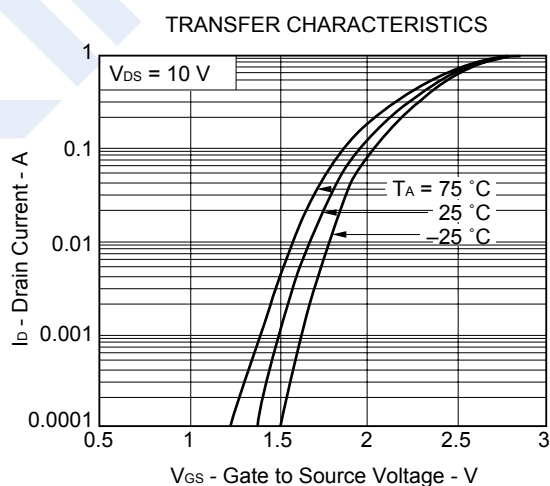
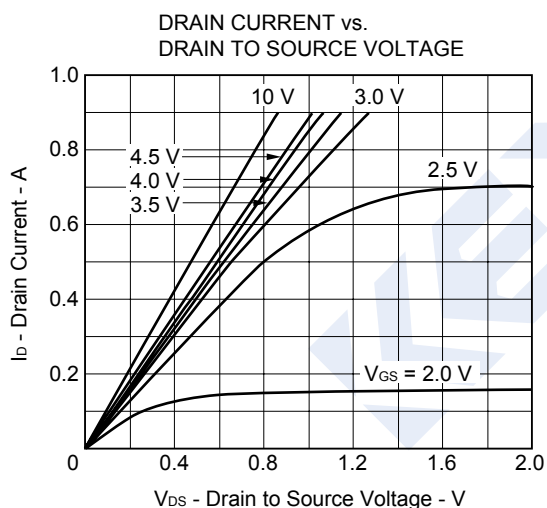
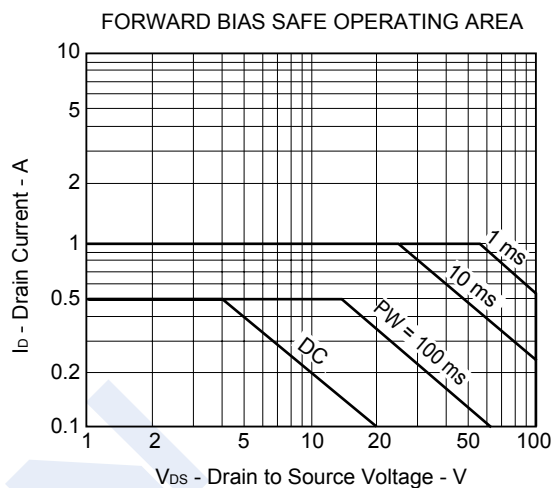
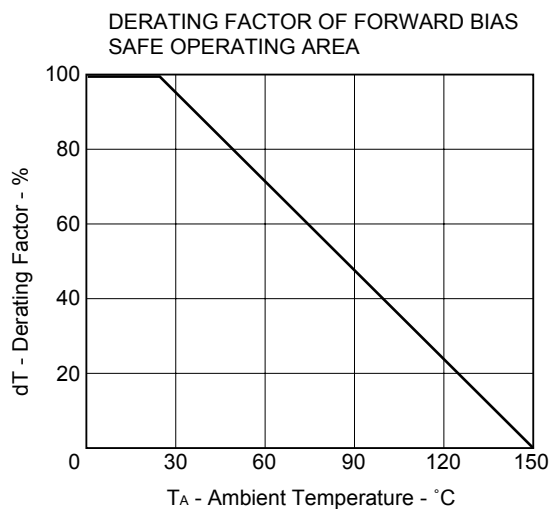
#### ■ Marking

|         |    |
|---------|----|
| Marking | NT |
|---------|----|

## N-Channel MOSFET

### 2SK2110

#### Typical Characteristics



## N-Channel MOSFET

### 2SK2110

#### Typical Characteristics

