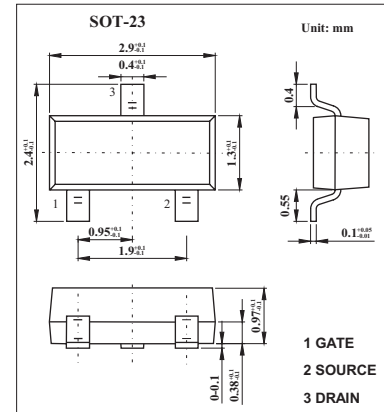
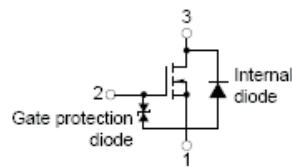


MOS Field Effect Transistor 2SK2158

■ Features

- Capable of drive gate with 1.5 V
- Because of high input impedance, there is no need to consider driving current.
- Bias resistance can be omitted, enabling reduction in total number of parts.



■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|-------------------------|-------------------|-------------|------|
| Drain to source voltage | V _{DSS} | 50 | V |
| Gate to source voltage | V _{GSS} | ±7.0 | V |
| Drain current | I _D | ±0.1 | A |
| | I _{DP} * | ±0.2 | A |
| Power dissipation | P _D | 200 | mW |
| Channel temperature | T _{ch} | 150 | °C |
| Storage temperature | T _{stg} | -55 to +150 | °C |

* PW ≤ 10 μs, Duty Cycle ≤ 1%

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|-------------------------------------|----------------------|---|-----|-----|------|------|
| Drain cut-off current | I _{DSS} | V _{DS} =50V, V _{GS} =0 | | | 1.0 | μA |
| Gate leakage current | I _{GSS} | V _{GS} =±7.0V, V _{DS} =0 | | | ±3.0 | μA |
| Gate to source cutoff voltage | V _{GS(off)} | V _{DS} =3V, I _D =10 μA | 0.5 | 0.7 | 1.1 | V |
| Forward transfer admittance | Y _{fs} | V _{DS} =3V, I _D =10mA | 20 | | | ms |
| Drain to source on-state resistance | R _{DS(on)} | V _{GS} =1.5V, I _D =1.0mA | | 32 | 50 | Ω |
| | | V _{GS} =2.5V, I _D =10mA | | 16 | 20 | Ω |
| | | V _{GS} =4.0V, I _D =1.0mA | | 12 | 15 | Ω |
| Input capacitance | C _{iss} | V _{DS} =3V, V _{GS} =0, f=1MHz | | 6 | | pF |
| Output capacitance | C _{oss} | | | 8 | | pF |
| Reverse transfer capacitance | C _{rss} | | | 1 | | pF |
| Turn-on delay time | t _{d(on)} | | | | 9 | |
| Rise time | t _r | I _D =20mA, V _{GS(on)} =3V, R _L =150 Ω, R _G =10 Ω, V _{DD} =3V | | 48 | | ns |
| Turn-off delay time | t _{d(off)} | | | 21 | | ns |
| Fall time | t _f | | | 31 | | ns |

■ Marking

| | |
|---------|-----|
| Marking | G23 |
|---------|-----|