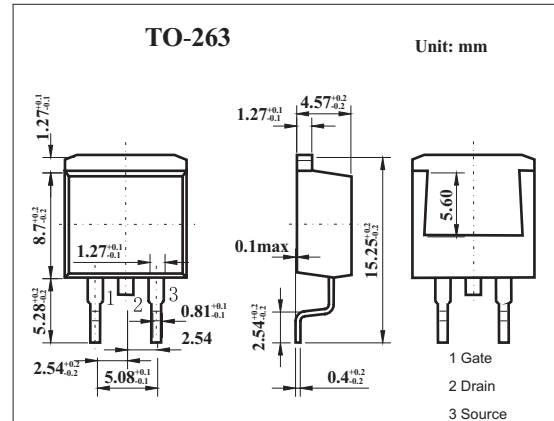
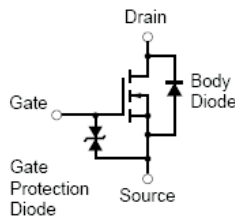


2SK3111

Features

- Gate voltage rating ± 30 V
- Low on-state resistance
 $R_{DS(on)} = 180\text{m}\Omega$ MAX. ($V_{GS} = 10$ V, $I_D = 10$ A)
- Low input capacitance
 $C_{iss} = 1000$ pF TYP. ($V_{DS} = 10$ V, $V_{GS} = 0$ V)
- Avalanche capability rated
- Built-in gate protection diode
- Surface mount device available



Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|-------------------------|------------|------------------------|------------------|
| Drain to source voltage | V_{DSS} | 200 | V |
| Gate to source voltage | V_{GSS} | ± 30 | V |
| Drain current | I_D | ± 20 | A |
| | I_{Dp}^* | ± 60 | A |
| Power dissipation | P_D | $T_c=25^\circ\text{C}$ | 62 |
| | | $T_A=25^\circ\text{C}$ | 1.5 |
| Channel temperature | T_{ch} | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

* $PW \leq 10 \mu\text{s}$, Duty Cycle $\leq 1\%$

Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit | |
|-------------------------------------|---------------|---|-----|------|----------|------------------|----|
| Drain cut-off current | I_{DSS} | $V_{DS}=200\text{V}, V_{GS}=0$ | | | 100 | μA | |
| Gate leakage current | I_{GSS} | $V_{GS}=\pm 30\text{V}, V_{DS}=0$ | | | ± 10 | μA | |
| Gate to source cut off voltage | $V_{GS(off)}$ | $V_{DS}=10\text{V}, I_D=1\text{mA}$ | 2.5 | | 4.5 | V | |
| Forward transfer admittance | $ Y_{fs} $ | $V_{DS}=10\text{V}, I_D=10\text{A}$ | 3.0 | | | S | |
| Drain to source on-state resistance | $R_{DS(on)}$ | $V_{GS}=10\text{V}, I_D=10\text{A}$ | | 120 | 180 | $\text{m}\Omega$ | |
| Input capacitance | C_{iss} | $V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$ | | 1000 | | pF | |
| Output capacitance | C_{oss} | | | | 300 | | pF |
| Reverse transfer capacitance | C_{rss} | | | | 150 | | pF |
| Turn-on delay time | t_{on} | $I_D=10\text{A}, V_{GS(on)}=10\text{V}, V_{DD}=100\text{V}, R_G=10\Omega$ | | 25 | | ns | |
| Rise time | t_r | | | | 90 | | ns |
| Turn-off delay time | t_{off} | | | | 80 | | ns |
| Fall time | t_f | | | | 40 | | ns |