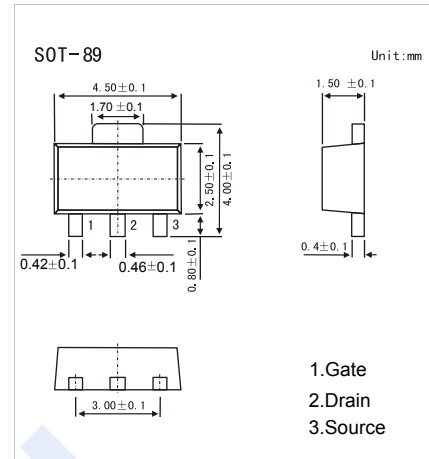
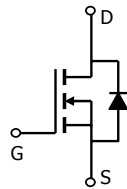


N-Channel MOSFET

KXF3055

■ Features

- $V_{DS} (V) = 60V$
- $I_D = 5.3 A (V_{GS} = 10V)$
- $R_{DS(ON)} < 60m\Omega (V_{GS} = 10V)$
- $R_{DS(ON)} < 80m\Omega (V_{GS} = 4.5V)$



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

| Parameter | Symbol | Rating | Unit |
|---------------------------|-----------|------------|------------|
| Drain-Source Voltage | V_{DS} | 60 | V |
| Gate-Source Voltage | V_{GS} | ± 20 | |
| Continuous Drain Current | I_D | 5.3 | A |
| Pulsed Drain Current | I_{DM} | 30 | |
| Power Dissipation | P_D | 2 | W |
| Junction Temperature | T_J | 150 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -55 to 150 | |

N-Channel MOSFET

KXF3055

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|-----------------------------------|--------------|---|-----|-----|-----------|---------------|
| Drain-Source Breakdown Voltage | V_{DS} | $I_D=250\ \mu\text{A}$, $V_{GS}=0\text{V}$ | 60 | | | V |
| Zero Gate Voltage Drain Current | I_{DSS} | $V_{DS}=48\text{V}$, $V_{GS}=0\text{V}$ | | | 0.1 | μA |
| Gate-Body Leakage Current | I_{GSS} | $V_{DS}=0\text{V}$, $V_{GS}=\pm 20\text{V}$ | | | ± 100 | nA |
| Gate Threshold Voltage | $V_{GS(th)}$ | $V_{DS}=V_{GS}$, $I_D=250\ \mu\text{A}$ | 1 | | 2.5 | V |
| Static Drain-Source On-Resistance | $R_{DS(on)}$ | $V_{GS}=10\text{V}$, $I_D=5.3\text{A}$ | | | 60 | m Ω |
| | | $V_{GS}=4.5\text{V}$, $I_D=4.7\text{A}$ | | | 80 | |
| Forward Transconductance | g_{FS} | $V_{DS}=5\text{V}$, $I_D=4.7\text{A}$ | 6 | | | S |
| Input Capacitance | C_{iss} | $V_{GS}=0\text{V}$, $V_{DS}=25\text{V}$, $f=1\text{MHz}$ | | | 800 | pF |
| Output Capacitance | C_{oss} | | | | 250 | |
| Reverse Transfer Capacitance | C_{rss} | | | | 60 | |
| Total Gate Charge | Q_g | $V_{GS}=10\text{V}$, $V_{DS}=40\text{V}$, $I_D=4.7\text{A}$ | | 9 | | nC |
| Gate Source Charge | Q_{gs} | | | 2 | | |
| Gate Drain Charge | Q_{gd} | | | 6 | | |
| Turn-On DelayTime | $t_{d(on)}$ | $V_{DS}=25\text{V}$, $I_D=1\text{A}$, $R_G=6\ \Omega$ | | | 20 | ns |
| Turn-On Rise Time | t_r | | | | 20 | |
| Turn-Off DelayTime | $t_{d(off)}$ | | | | 50 | |
| Turn-Off Fall Time | t_f | | | | 20 | |
| Diode Forward Voltage | V_{SD} | $I_S=2\text{A}$, $V_{GS}=0\text{V}$ | | | 1.25 | V |

■ Marking

| | |
|---------|----|
| Marking | KA |
|---------|----|