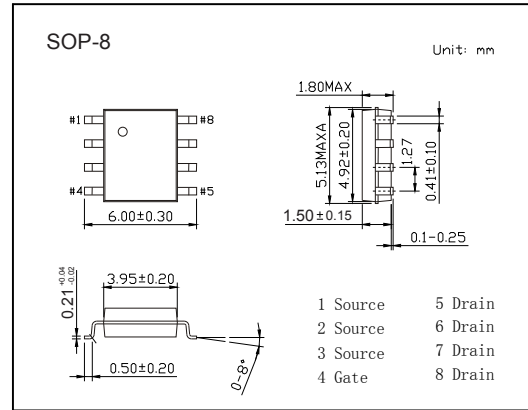
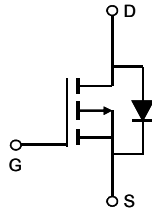


P-Channel MOSFET AO4407

■ Features

- $V_{DS} (V) = -30V$
- $I_D = -12 A (V_{GS} = -20V)$
- $R_{DS(ON)} < 13m\Omega (V_{GS} = -20V)$
- $R_{DS(ON)} < 14m\Omega (V_{GS} = -10V)$
- $R_{DS(ON)} < 30m\Omega (V_{GS} = -5V)$



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

| Parameter | Symbol | Rating | Unit | |
|---|------------------|--------------------|------------|--------------|
| Drain-Source Voltage | V_{DS} | -30 | V | |
| Gate-Source Voltage | V_{GS} | ± 25 | | |
| Continuous Drain Current | I_D | $T_A = 25^\circ C$ | A | |
| | | $T_A = 70^\circ C$ | | -10 |
| Pulsed Drain Current | I_{DM} | -60 | | |
| Avalanche Current | I_{AS}, I_{AR} | 26 | | |
| Power Dissipation | P_D | $T_A = 25^\circ C$ | 3.1 | W |
| | | $T_A = 70^\circ C$ | 2 | |
| Avalanche energy | $L = 0.3mH$ | E_{AS}, E_{AR} | 101 | mJ |
| Thermal Resistance.Junction- to-Ambient | R_{thJA} | $t \leq 10s$ | 40 | $^\circ C/W$ |
| | | Steady-State | 75 | |
| Thermal Resistance.Junction- to-Case | Steady-State | R_{thJC} | 24 | |
| Junction Temperature | T_J | 150 | $^\circ C$ | |
| Junction Storage Temperature Range | T_{stg} | -55 to 150 | | |



P-Channel MOSFET AO4407

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------------------------|---------------------|---|------|------|------|------|
| Drain-Source Breakdown Voltage | V _{DSS} | I _D =-250 μ A, V _{GS} =0V | -30 | | | V |
| Zero Gate Voltage Drain Current | I _{DSS} | V _{DS} =-30V, V _{GS} =0V | | | -1 | μ A |
| | | V _{DS} =-30V, V _{GS} =0V, T _J =55°C | | | -5 | |
| Gate-Body leakage current | I _{GSS} | V _{DS} =0V, V _{GS} =±25V | | | ±100 | nA |
| Gate Threshold Voltage | V _{GS(th)} | V _{DS} =V _{GS} I _D =-250 μ A | -1.7 | | -2.8 | V |
| Static Drain-Source On-Resistance | R _{DS(on)} | V _{GS} =-20V, I _D =-12A | | | 13 | m Ω |
| | | V _{GS} =-10V, I _D =-12A | | | 14 | |
| | | V _{GS} =-10V, I _D =-12A T _J =125°C | | | 19 | |
| | | V _{GS} =-5V, I _D =-7A | | | 30 | |
| On state drain current | I _{D(ON)} | V _{GS} =-10V, V _{DS} =-5V | -60 | | | A |
| Forward Transconductance | g _{FS} | V _{DS} =-5V, I _D =-10.5A | | 27 | | S |
| Input Capacitance | C _{iss} | V _{GS} =0V, V _{DS} =-15V, f=1MHz | | 2060 | 2600 | pF |
| Output Capacitance | C _{oss} | | | 370 | | |
| Reverse Transfer Capacitance | C _{rss} | | | 295 | | |
| Gate resistance | R _g | V _{GS} =0V, V _{DS} =0V, f=1MHz | 1.2 | 2.4 | 3.6 | Ω |
| Total Gate Charge | Q _g | V _{GS} =-10V, V _{DS} =-15V, I _D =-12A | 24 | 30 | 36 | nC |
| Gate Source Charge | Q _{gs} | | | 4.6 | | |
| Gate Drain Charge | Q _{gd} | | | 10 | | |
| Turn-On DelayTime | t _{d(on)} | V _{GS} =-10V, V _{DS} =-15V, R _L =1.25 Ω, R _G =3 Ω | | 11 | | ns |
| Turn-On Rise Time | t _r | | | 9.4 | | |
| Turn-Off DelayTime | t _{d(off)} | | | 24 | | |
| Turn-Off Fall Time | t _f | | | 12 | | |
| Body Diode Reverse Recovery Time | t _{rr} | I _F =-12A, di/dt=100A/μ s | | 30 | 40 | nC |
| Body Diode Reverse Recovery Charge | Q _{rr} | | | 22 | | |
| Maximum Body-Diode Continuous Current | I _S | | | | -4 | A |
| Diode Forward Voltage | V _{SD} | I _S =-1A, V _{GS} =0V | | | -1 | V |

■ Marking

| | |
|---------|-------|
| Marking | 4407A |
|---------|-------|