

Ordering number : 000000

N-Channel Silicon MOSFET

FW262

SANYO

Preliminary

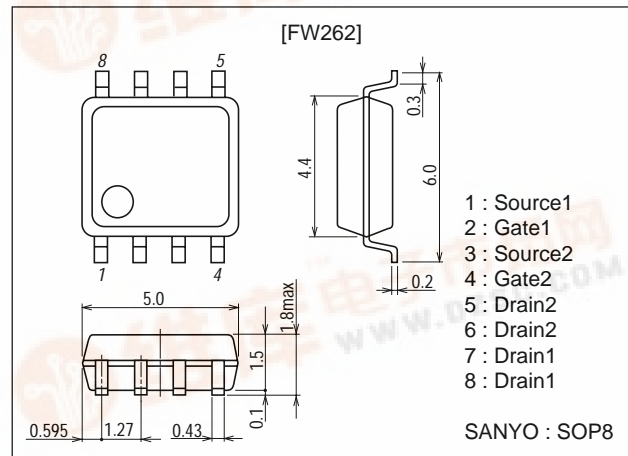
Features

- Low ON-resistance.
- 2.5V drive.

Package Dimensions

unit : mm

0000



Specifications

Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|----------|--|-------------|------|
| Drain-to-Source Voltage | V_{DS} | | 30 | V |
| Gate-to-Source Voltage | V_{GS} | | ± 10 | V |
| Drain Current (DC) | I_D | | 9 | A |
| Drain Current (Pulse) | I_{DP} | $PW \leq 10\mu s$, duty cycle $\leq 1\%$ | 52 | A |
| Allowable Power Dissipation | P_D | Mounted on a ceramic board (1000mm ² X 0.8mm) | 1.7 | W |
| Total Dissipation | P_T | Mounted on a ceramic board (1000mm ² X 0.8mm) | 2.0 | W |
| Channel Temperature | Tch | | 150 | °C |
| Storage Temperature | Tstg | | -55 to +150 | °C |

Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--|---------------|----------------------------------|---------|-----|----------|------------|
| | | | min | typ | max | |
| Drain-to-Source Breakdown Voltage | $V_{(BR)DSS}$ | $I_D = 1mA$, $V_{GS} = 0$ | 30 | | | V |
| Zero-Gate Voltage Drain Current | I_{DSS} | $V_{DS} = 30V$, $V_{GS} = 0$ | | | 1 | μA |
| Gate-to-Source Leakage Current | I_{GSS} | $V_{GS} = \pm 8V$, $V_{DS} = 0$ | | | ± 10 | μA |
| Cutoff Voltage | $V_{GS(off)}$ | $V_{DS} = 10V$, $I_D = 1mA$ | 0.4 | | 1.3 | V |
| Forward Transfer Admittance | $ y_{fs} $ | $V_{DS} = 10V$, $I_D = 9A$ | 19.5 | 28 | | S |
| Static Drain-to-Source On-State Resistance | $R_{DS(on)1}$ | $I_D = 9A$, $V_{GS} = 4V$ | | 12 | 16 | m Ω |
| | $R_{DS(on)2}$ | $I_D = 2A$, $V_{GS} = 2.5V$ | | 14 | 20 | m Ω |

Marking : W262

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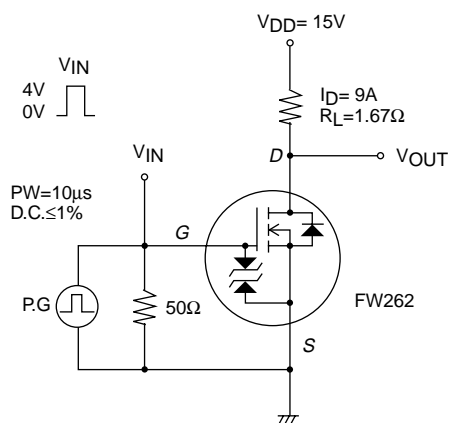


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| Parameter | Symbol | Conditions | Ratings | | | Unit |
|-------------------------------|------------|----------------------------------|---------|------|-----|------|
| | | | min | typ | max | |
| Input Capacitance | Ciss | $V_{DS}=10V, f=1MHz$ | | 2350 | | pF |
| Output Capacitance | Coss | $V_{DS}=10V, f=1MHz$ | | 390 | | pF |
| Reverse Transfer Capacitance | Crss | $V_{DS}=10V, f=1MHz$ | | 330 | | pF |
| Turn-ON Delay Time | $t_d(on)$ | See specified Test Circuit | | 25 | | ns |
| Rise Time | t_r | See specified Test Circuit | | 240 | | ns |
| Turn-OFF Delay Time | $t_d(off)$ | See specified Test Circuit | | 215 | | ns |
| Fall Time | t_f | See specified Test Circuit | | 295 | | ns |
| Total Gate Charge | Qg | $V_{DS}=10V, V_{GS}=10V, I_D=9A$ | | 72 | | nC |
| Gate-to-Source Charge | Qgs | $V_{DS}=10V, V_{GS}=10V, I_D=9A$ | | 5 | | nC |
| Gate-to-Drain "Miller" Charge | Qgd | $V_{DS}=10V, V_{GS}=10V, I_D=9A$ | | 7.8 | | nC |
| Diode Forward Voltage | VSD | $I_S=9A, V_{GS}=0$ | | 0.82 | 1.2 | V |

Switching Time Test Circuit



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