

**SANYO****FX607**

## N-Channel Silicon MOSFET Ultrahigh-Speed Switching, Motor Driver Applications

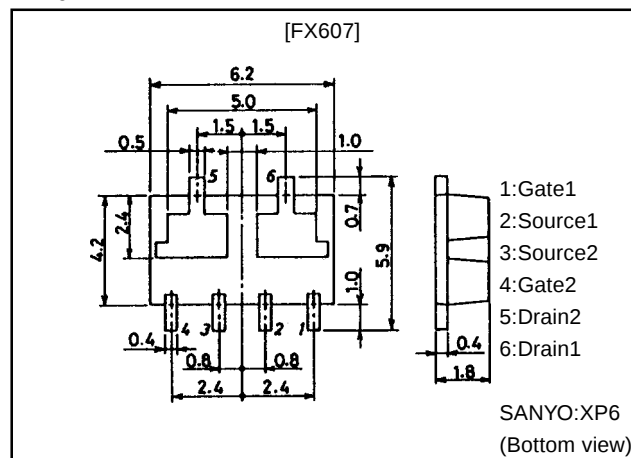
### Features

- Composite type composed of two low ON-resistance N-channel MOSFET chips for ultrahigh-speed switching and low-voltage drive.
- Facilitates high-density mounting.
- The FX607 is formed with two chips, each being equivalent to the 2SK2260, placed in one package.
- Matched pair characteristics.

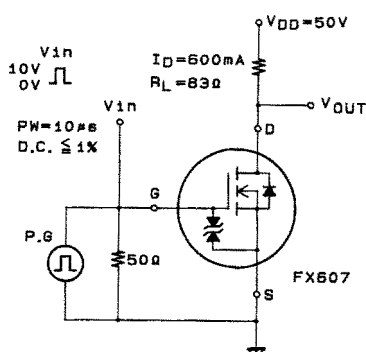
### Package Dimensions

unit:mm

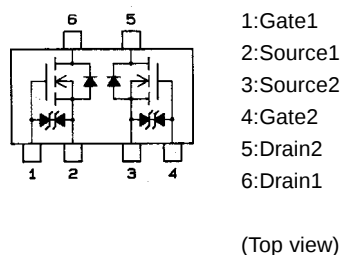
2120



### Switching Time Test Circuit



### Electrical Connection



### Specifications

#### Absolute Maximum Ratings at $T_a = 25^\circ C$

| Parameter                   | Symbol    | Conditions                                                   | Ratings     | Unit       |
|-----------------------------|-----------|--------------------------------------------------------------|-------------|------------|
| Drain-to-Source Voltage     | $V_{DSS}$ |                                                              | 150         | V          |
| Gate-to-Source Voltage      | $V_{GSS}$ |                                                              | $\pm 20$    | V          |
| Drain Current (DC)          | $I_D$     |                                                              | 1.2         | A          |
| Drain Current (Pulse)       | $I_{DP}$  | $PW \leq 10\mu s$ , duty cycle $\leq 1\%$                    | 4.8         | A          |
| Allowable Power Dissipation | $P_D$     | $T_c = 25^\circ C$ , 1 unit                                  | 6           | W          |
|                             | $P_D$     | Mounted on ceramic board (750mm <sup>2</sup> × 0.8mm) 1 unit | 1.5         | W          |
| Total Dissipation           | $P_T$     | Mounted on ceramic board (750mm <sup>2</sup> × 0.8mm)        | 2           | W          |
| Channel Temperature         | $T_{ch}$  |                                                              | 150         | $^\circ C$ |
| Storage Temperature         | $T_{stg}$ |                                                              | -55 to +150 | $^\circ C$ |

· Marking:607

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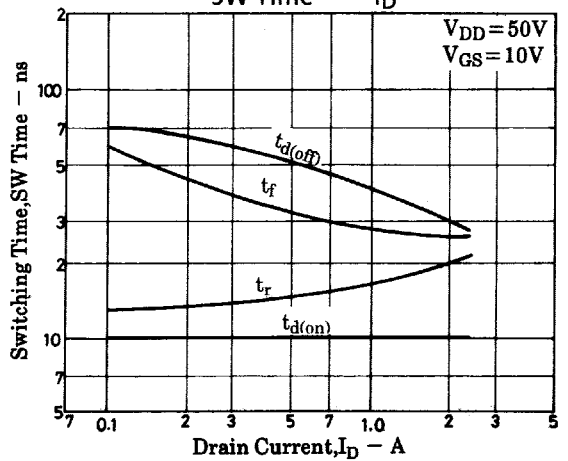
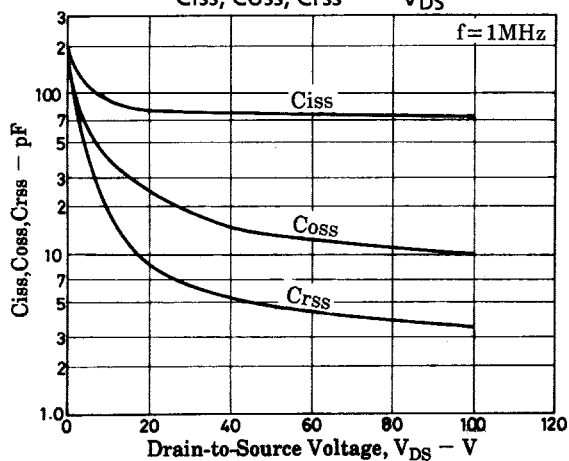
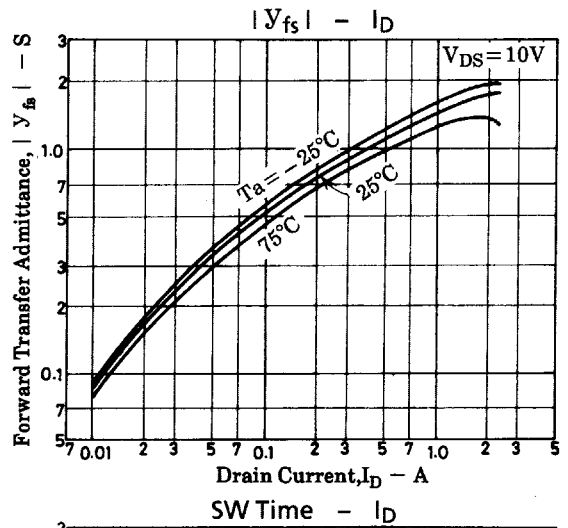
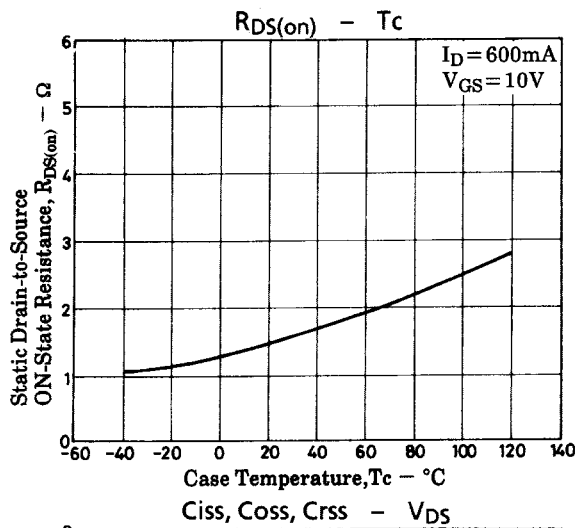
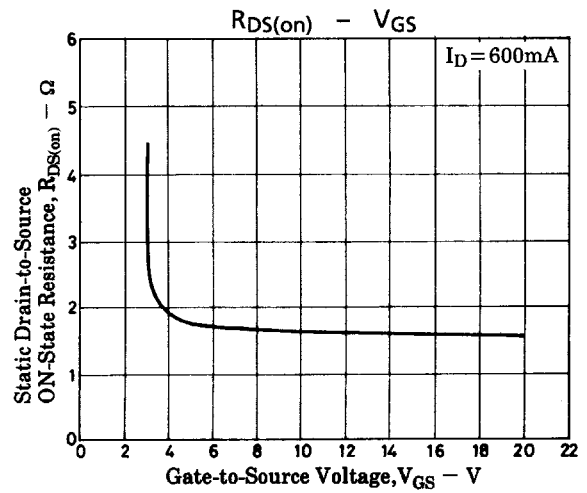
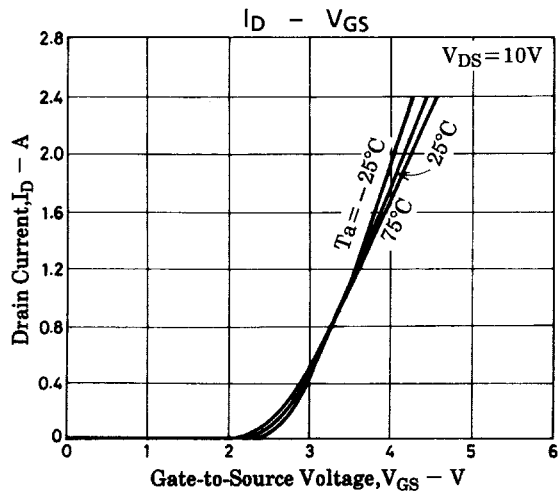
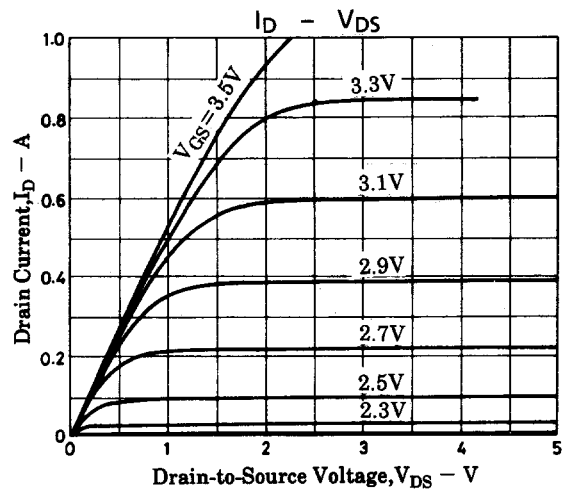
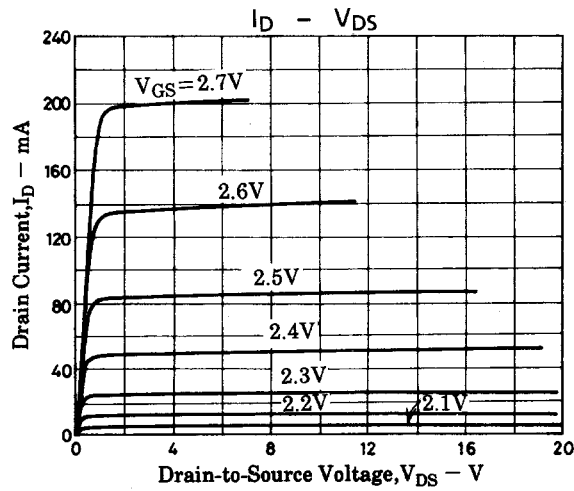
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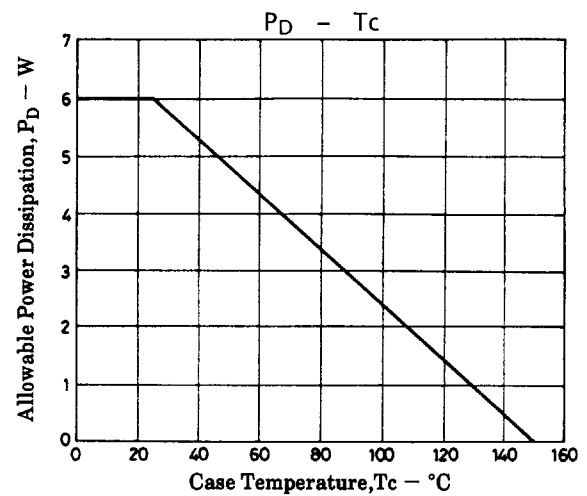
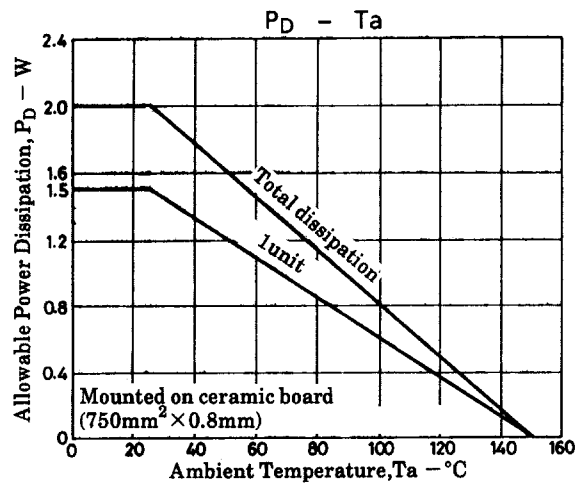
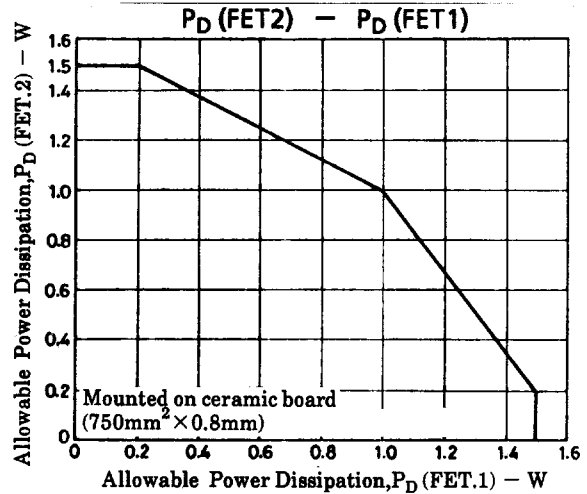
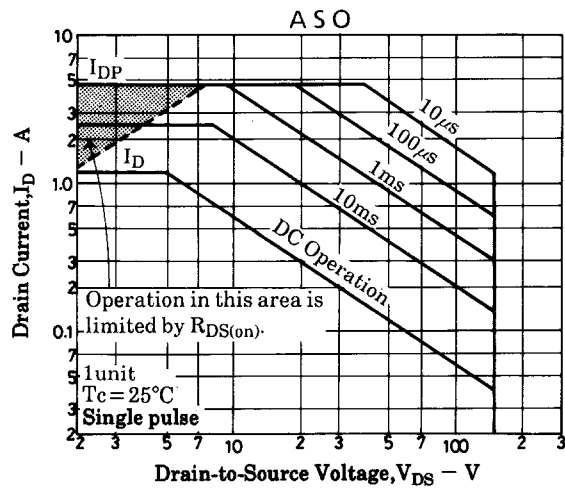
## FX607

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

| Parameter                                  | Symbol        | Conditions                               | Ratings |     |          | Unit          |
|--------------------------------------------|---------------|------------------------------------------|---------|-----|----------|---------------|
|                                            |               |                                          | min     | typ | max      |               |
| D-S Breakdown Voltage                      | $V_{(BR)DSS}$ | $I_D=1\text{mA}$ , $V_{GS}=0$            | 150     |     |          | V             |
| Zero-Gate Voltage Drain Current            | $I_{DSS}$     | $V_{DS}=150\text{V}$ , $V_{GS}=0$        |         |     | 100      | $\mu\text{A}$ |
| Gate-to-Source Leakage Current             | $I_{GSS}$     | $V_{GS}=\pm 18\text{V}$ , $V_{DS}=0$     |         |     | $\pm 10$ | $\mu\text{A}$ |
| Cutoff Voltage                             | $V_{GS(off)}$ | $V_{DS}=10\text{V}$ , $I_D=1\text{mA}$   | 1.5     |     | 2.5      | V             |
| Forward Transfer Admittance                | $ Y_{fs} $    | $V_{DS}=10\text{V}$ , $I_D=600\text{mA}$ | 0.8     | 1.1 |          | S             |
| Static Drain-to-Source ON-State Resistance | $R_{DS(on)}$  | $I_D=600\text{mA}$ , $V_{GS}=10\text{V}$ |         | 1.6 | 2.2      | $\Omega$      |
| Input Capacitance                          | $C_{iss}$     | $V_{DS}=20\text{V}$ , $f=1\text{MHz}$    |         | 80  |          | pF            |
| Output Capacitance                         | $C_{oss}$     | $V_{DS}=20\text{V}$ , $f=1\text{MHz}$    |         | 25  |          | pF            |
| Reverse Transfer Capacitance               | $C_{rss}$     | $V_{DS}=20\text{V}$ , $f=1\text{MHz}$    |         | 8.5 |          | pF            |
| Turn-ON Delay Time                         | $t_{d(on)}$   | See specified Test Circuit               |         | 10  |          | ns            |
| Rise Time                                  | $t_r$         | See specified Test Circuit               |         | 15  |          | ns            |
| Turn-OFF Delay Time                        | $t_{d(off)}$  | See specified Test Circuit               |         | 50  |          | ns            |
| Fall Time                                  | $t_f$         | See specified Test Circuit               |         | 30  |          | ns            |
| Diode Forward Voltage                      | $V_{SD}$      | $I_S=1.2\text{A}$ , $V_{GS}=0$           |         | 1.0 |          | V             |





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