



# FX607

## N-Channel Silicon MOSFET

## Ultrahigh-Speed Switching, Motor Driver Applications

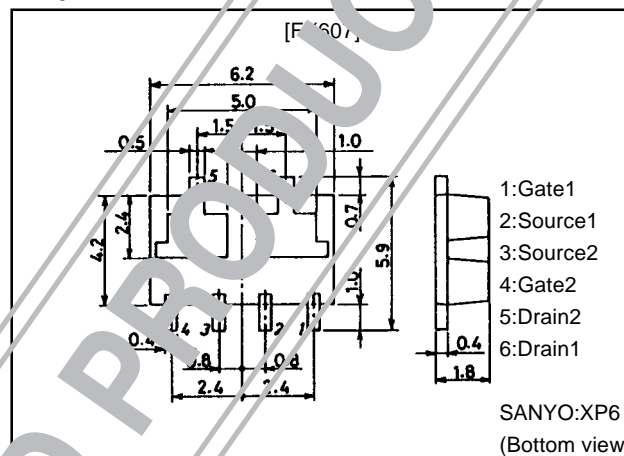
## Features

- 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.

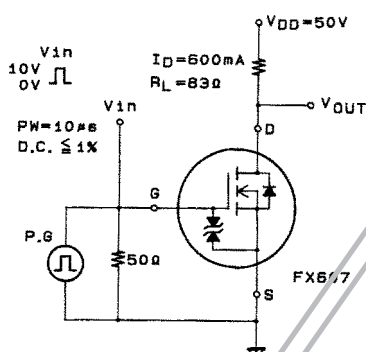
## Package Dimensions

unit:mm

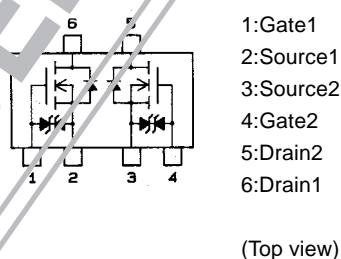
2120



## Switching Time Test Circuit



## Electrical Connection



## Specifications

Absolute Maximum Ratings (T = 25°C)

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	$V_{DS}$		150	V
Gate-to-Source Voltage	$V_{GS}$		$\pm 20$	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	°C
Storage Temperature	$T_{stg}$		-55 to +150	°C

· Marking:607

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**SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquarters**

**TOKYO OFFICE** Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

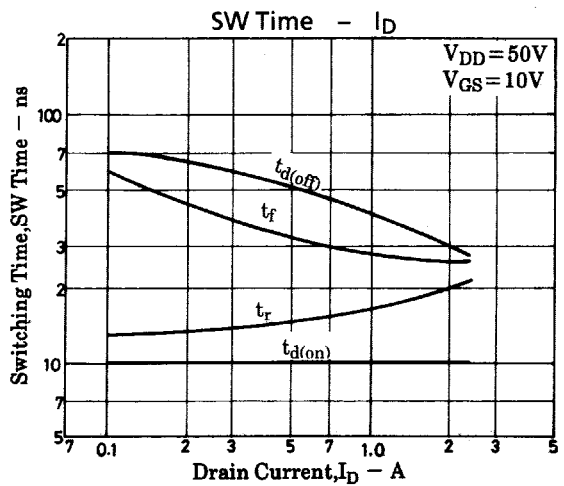
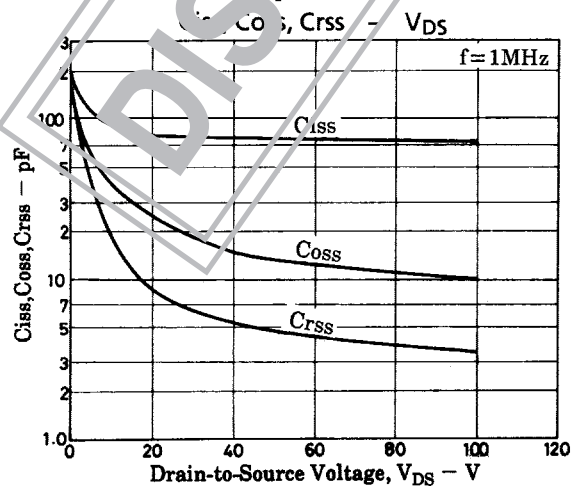
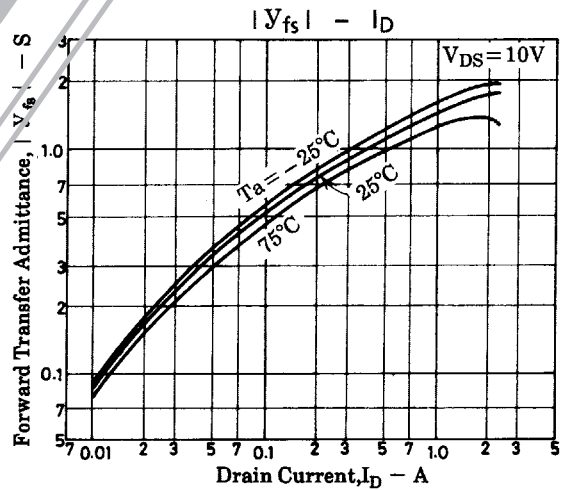
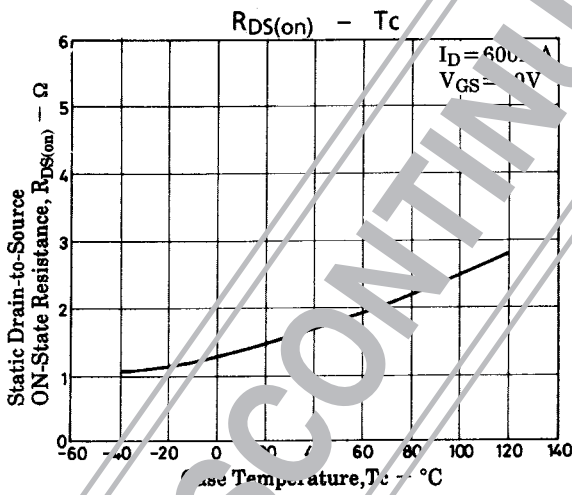
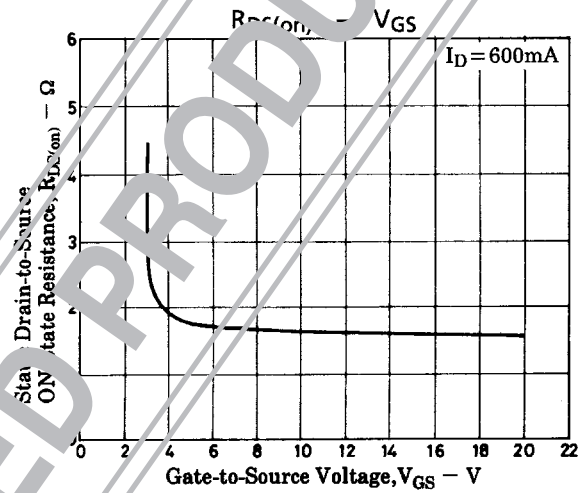
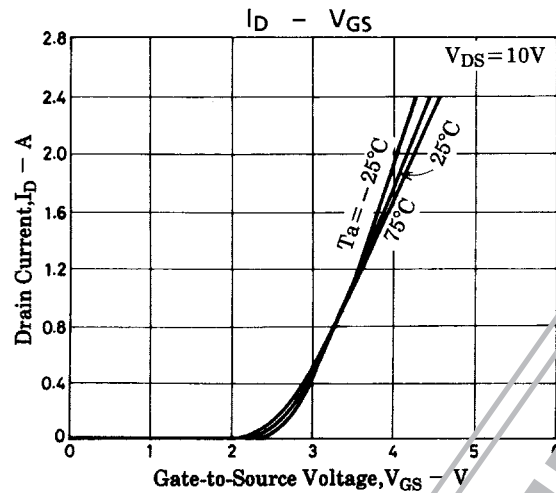
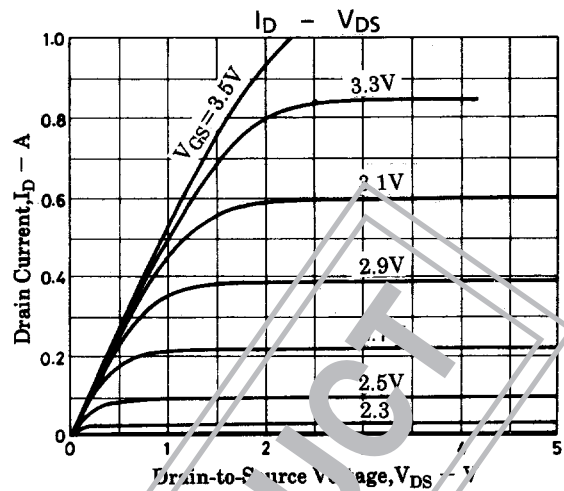
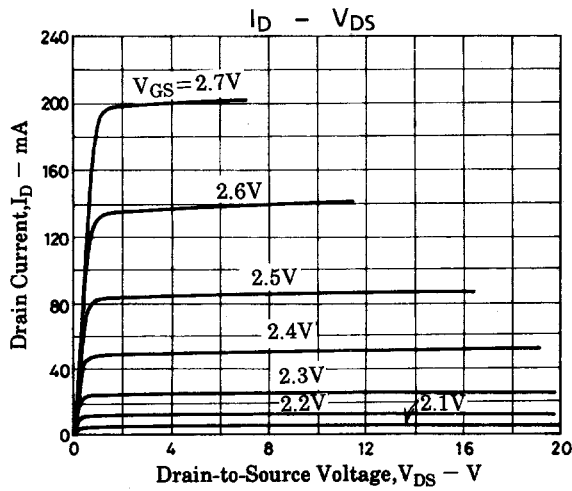
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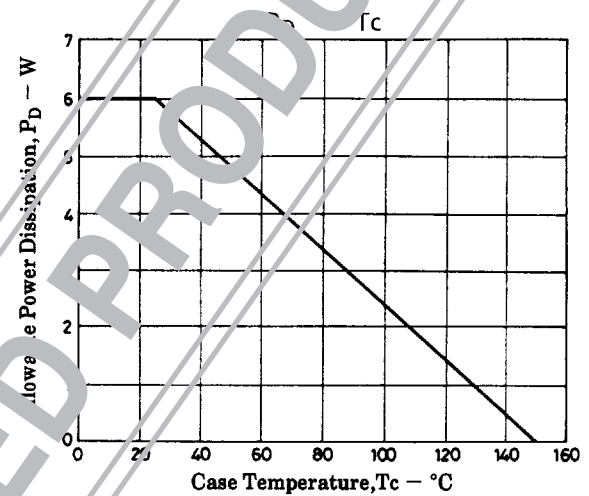
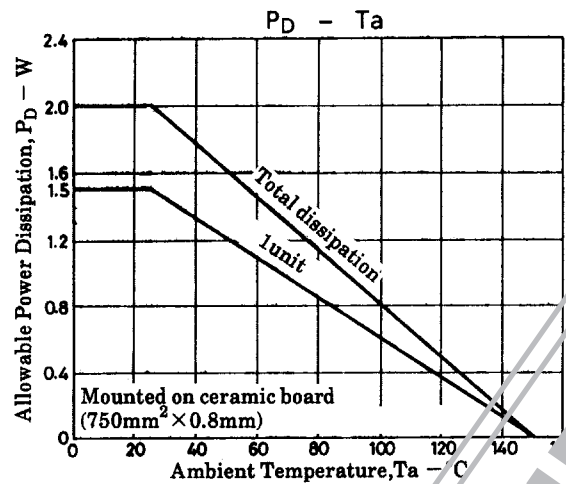
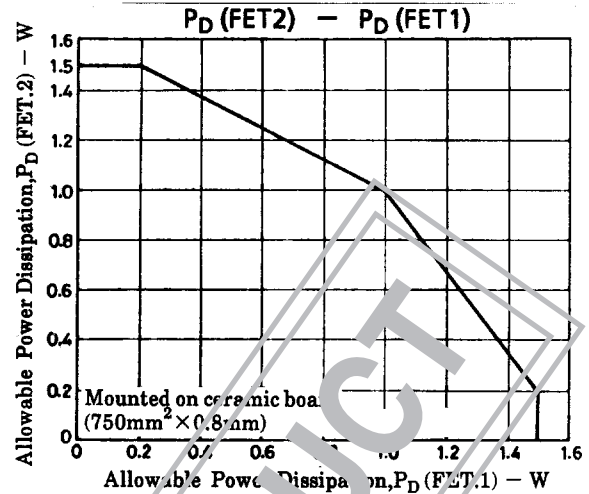
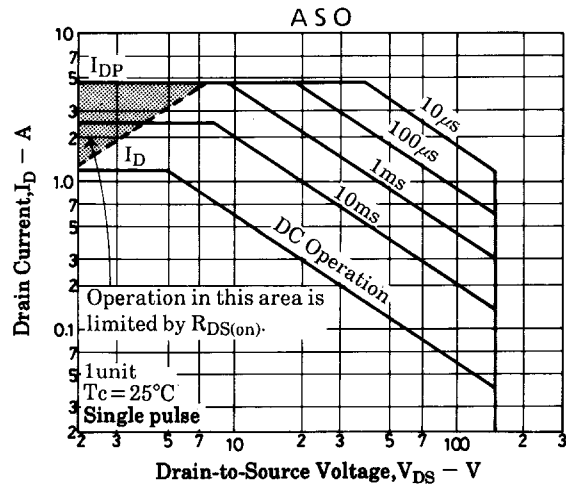
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Electrical Characteristics at  $T_a = 25^\circ\text{C}$ 

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	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	$C_{iss}$	$V_{DS}=20\text{V}$ , $f=1\text{MHz}$		5		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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