

Ordering number:EN4888



FX605

P-Channel Silicon MOSFET

Ultrahigh-Speed Switching Applications

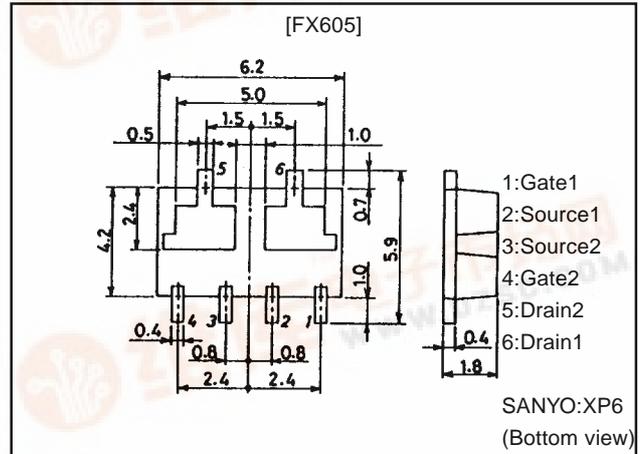
Features

- Composite type composed of two low ON-resistance P-channel MOSFET chips for ultrahigh-speed switching and low-voltage drive.
- Facilitates high-density mounting.
- The FX605 is formed with two chips, each being equivalent to the 2SJ190, placed in one package.
- Matched pair characteristics.

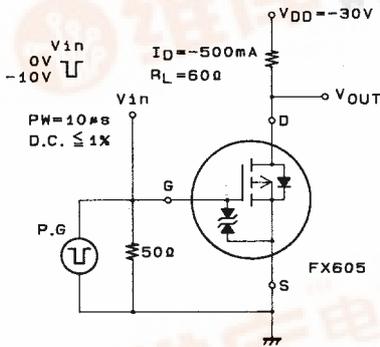
Package Dimensions

unit:mm

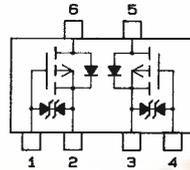
2120



Switching Time Test Circuit



Electrical Connection



- 1: Gate1
- 2: Source1
- 3: Source2
- 4: Gate2
- 5: Drain2
- 6: Drain1

(Top view)

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		-60	V
Gate-to-Source Voltage	V_{GSS}		±15	V
Drain Current (DC)	I_D		-1	A
Drain Current (Pulse)	I_{DP}	$PW \leq 10\mu s$, duty cycle $\leq 1\%$	-4	A
Allowable Power Dissipation	P_D	$T_c = 25^\circ C$, 1unit	6	W
	P_D	Mounted on ceramic board (750mm ² ×0.8mm) 1unit	1.5	W
Total Dissipation	P_T	Mounted on ceramic board (750mm ² ×0.8mm)	2	W
Channel Temperature	T_{ch}		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

· Marking:605

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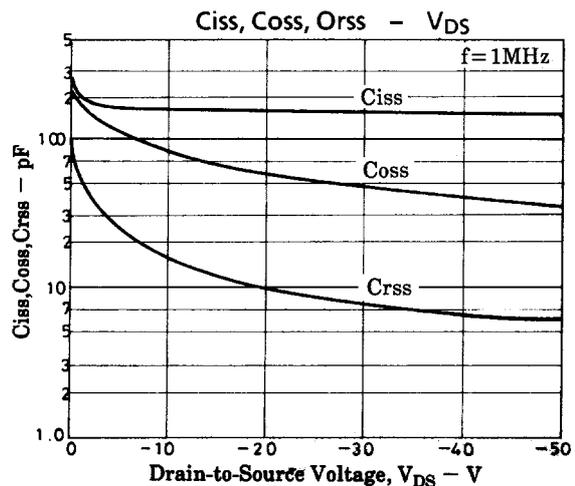
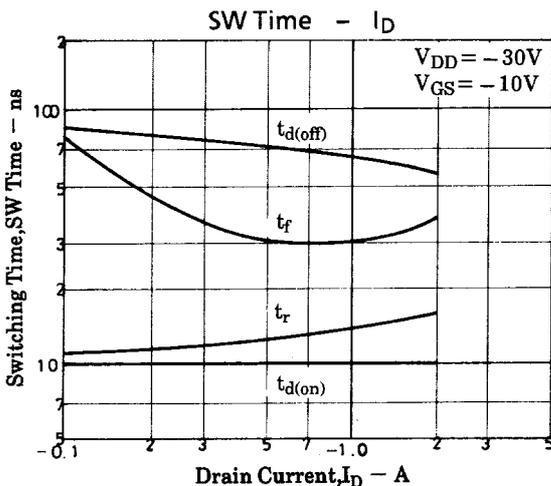
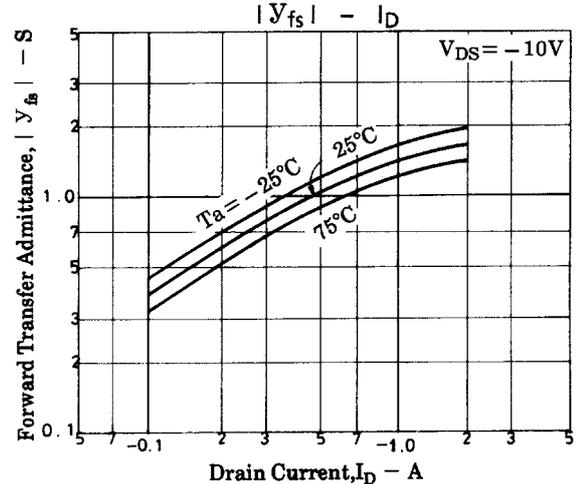
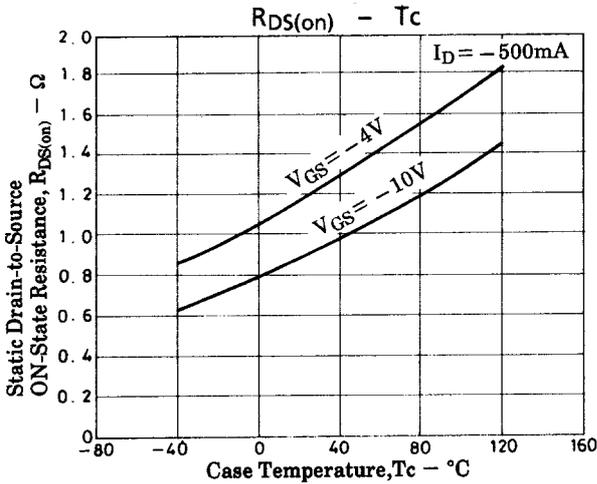
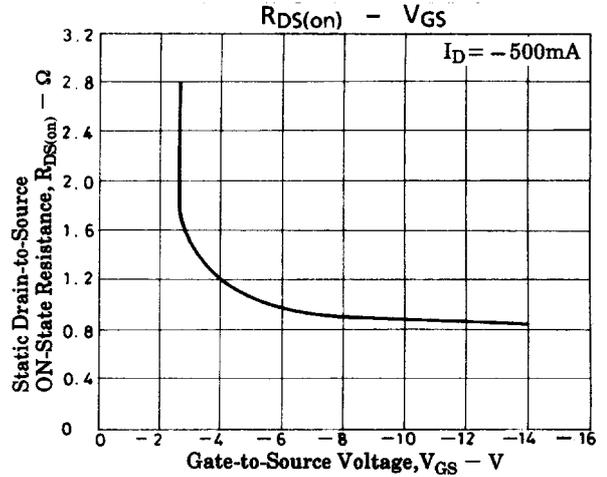
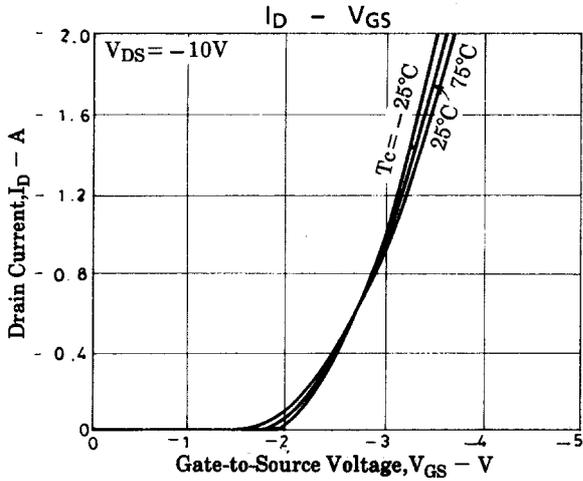
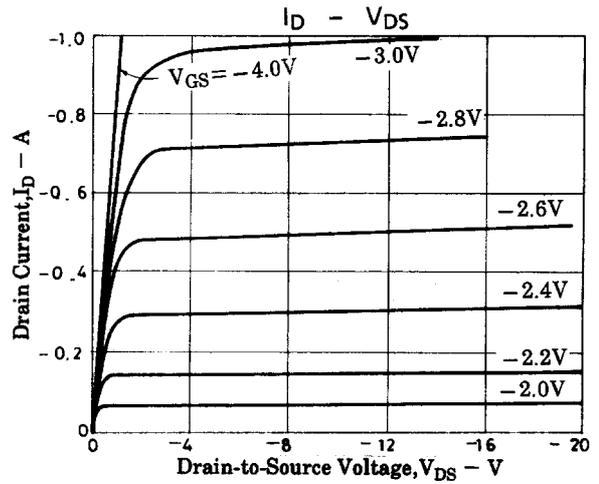
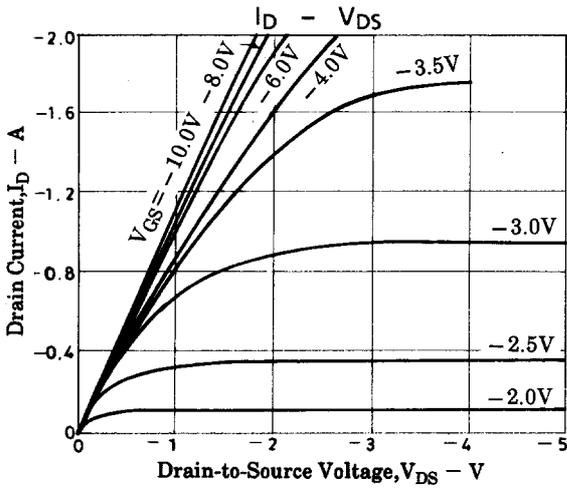
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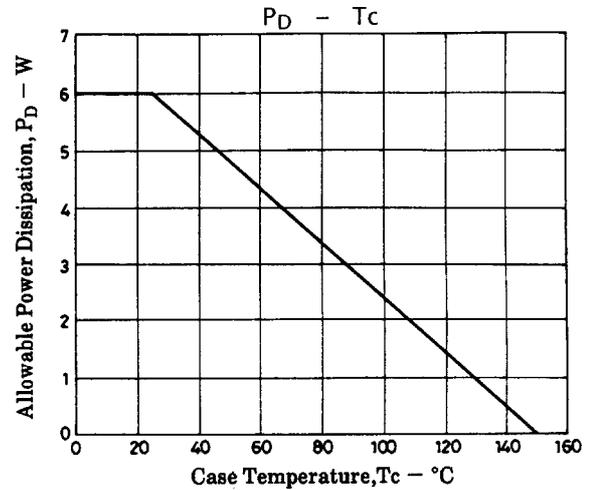
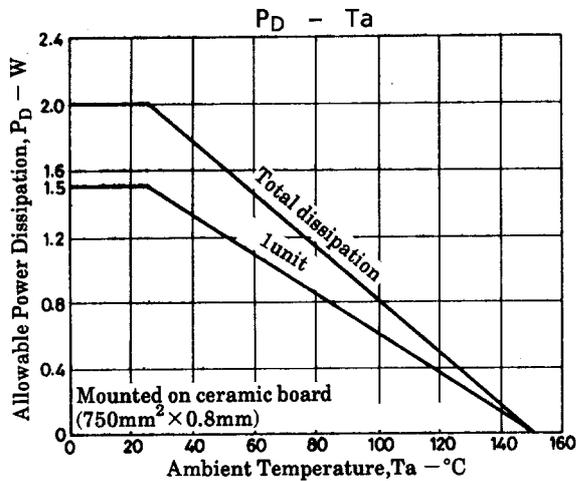
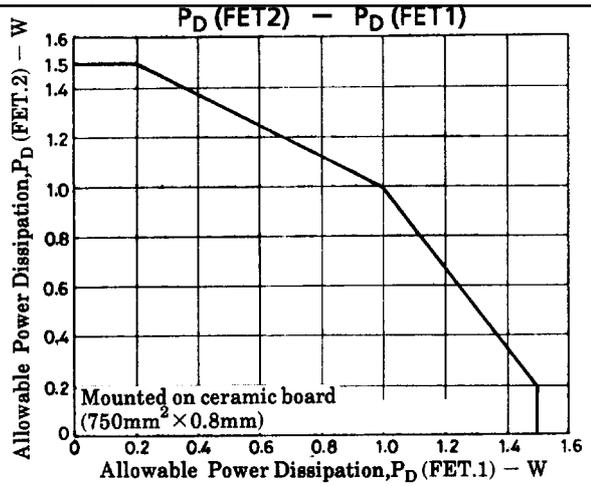
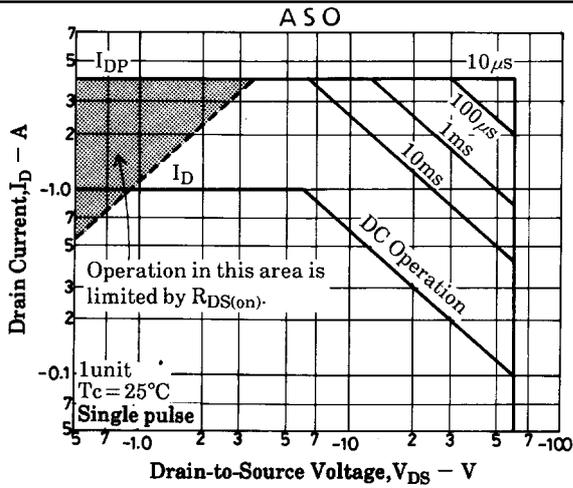
Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D=-1mA, V_{GS}=0$	-60			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-60V, V_{GS}=0$			-100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 12, V_{DS}=0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=-10V, I_D=-1mA$	-1.0		-2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS}=-10V, I_D=-500mA$	0.6	1.0		S
Static Drain-to-Source ON-State Resistance	$R_{DS(on)}$	$I_D=-500mA, V_{GS}=-10V$		0.9	1.2	Ω
	$R_{DS(on)}$	$I_D=-500mA, V_{GS}=-4V$		1.2	1.6	Ω
Input Capacitance	C_{iss}	$V_{DS}=-20V, f=1MHz$		160		pF
Output Capacitance	C_{oss}	$V_{DS}=-20V, f=1MHz$		60		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=-20V, f=1MHz$		10		pF
Turn-ON Delay Time	$t_{d(on)}$	See Specified Test Circuit		10		ns
Rise Time	t_r	See Specified Test Circuit		13		ns
Turn-OFF Delay Time	$t_{d(off)}$	See Specified Test Circuit		70		ns
Fall Time	t_f	See Specified Test Circuit		30		ns
Diode Forward Voltage	V_{SD}	$I_S=-1A, V_{GS}=0$		-0.9		V

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