

FX603

P-Channel Silicon MOSFET

Ultrahigh-Speed Switching Applications

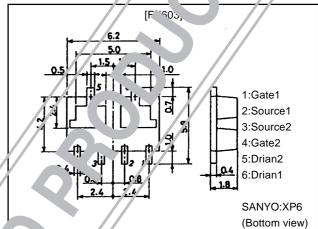
Features

- · 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 FX603 is formed with two chips, each being equivalent to the 2SJ187, placed in one package.
- · Matched pair characteristics.

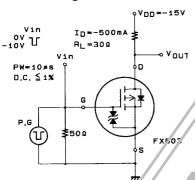
Package Dimensions

unit:mm

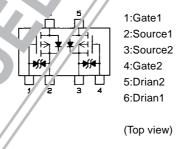
2120



Switching Time Test CIrcuit



Tlec rical Connection



Specifications

Absolute Maximum Rr mgs at ra = 25°C

Parameter	Syribol	Conditions	Ratings	Unit
Drain-to-Source Voltage	VDSS		-30	V
Gate-to-Source Voltage	V _{GSS}		±15	V
Drain Current (DC)	I _D		-1	Α
Drain Cyarrent (Pulse)	I _{DP}	PW≤10µs, duty cycle≤1%	-4	Α
Allowable Power issipati	PD	Tc=25°C, 1unit	6	W
	PD	Mounted on ceramic board (750mm ² ×0.8mm) 1unit	1.5	W
Total Dissipation	PT	Mounted on ceramic board (750mm ² ×0.8mm)	2	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

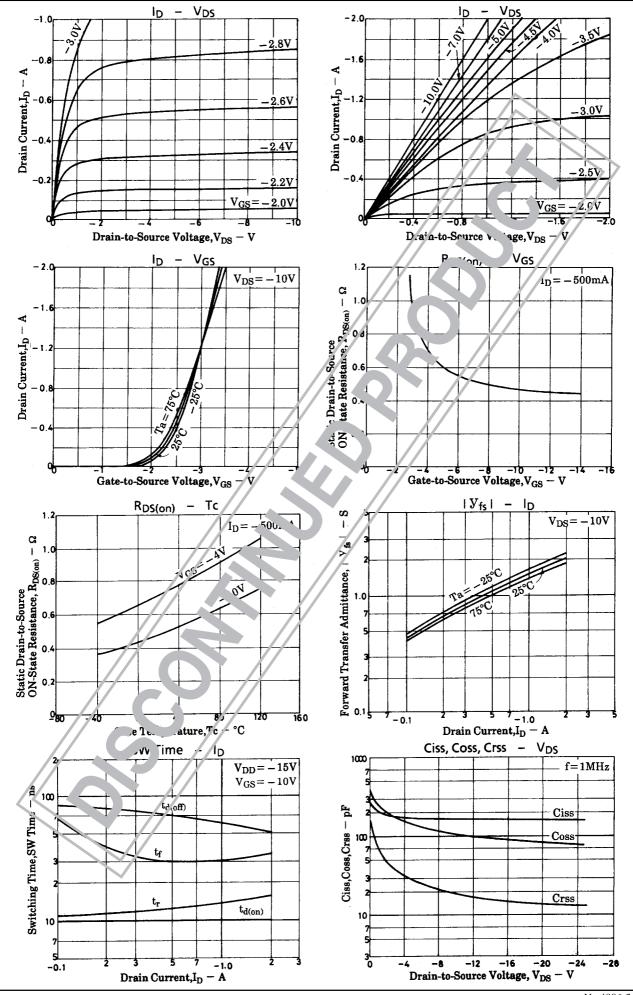
· Marking:603

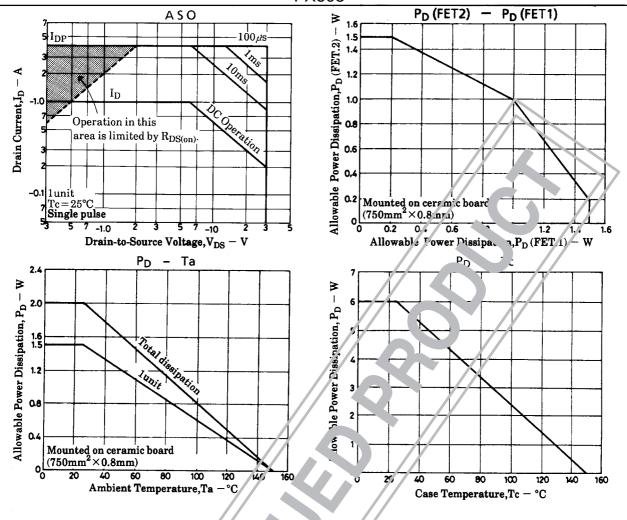
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Electrical Characteristics at $Ta = 25^{\circ}C$

Parameter	Symbol	Conditions	Ratings			Unit
raiametei			min	typ	max	Offic
D-S Breakdown Voltage	V(BR)DSS	I _D =-1mA, V _{GS} =0	-60			V
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =-30V, V _{GS} =0			-100	μA
Gate-to-Source Leakage Current	IGSS	$V_{GS}=\pm 12, V_{DS}=0$			±10	μΑ
Cutoff Voltage	V _{GS(off)}	V _{DS} =-10V, I _D =-1mA	-1.0		- 2.0	V
Forward Transfer Admittance	Yfs	V _{DS} =-10V, I _D =-500mA	0	1.0		S
Static Drain-to-Source ON-State Resistance	R _{DS(on)}	I _D =-500mA, V _{GS} =-10V		0.5	0.75	Ω
	R _{DS(on)}	I _D =-500mA, V _{GS} =-4V		0., 3	1.1	Ω
Input Capacitance	Ciss	V _{DS} =-10V, f=1MHz		170		pF
Output Capacitance	Coss	V _{DS} =-10V, f=1MHz		110		pF
Reverse Transfer Capacitance	Crss	V _{DS} =-10V, f=1MHz		20	7	pF
Turn-ON Delay Time	t _{d(on)}	See Specified Test Circuit		10		ns
Rise Time	t _r	See Specified Test Circuit		/3		ns
Turn-OFF Delay Time	td(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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