



FX208

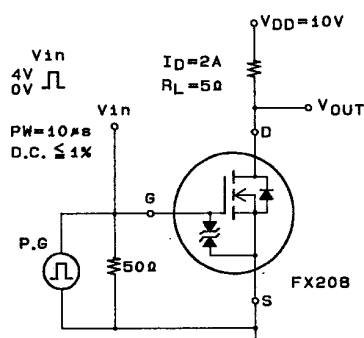
N-Channel Silicon MOSFET

Very High-Speed Switching Applications

Features

- Low ON-resistance.
- Very high-speed switching.
- 2.5V drive.

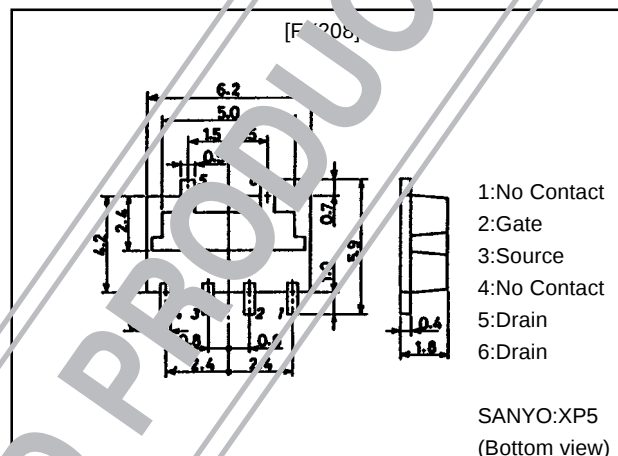
Switching Time Test Circuit



Package Dimensions

unit:mm

2121



Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DS}		20	V
Gate-to-Source Voltage	V_{GS}		± 10	V
Drain Current (DC)	I_D		4	A
Drain Current (Pulse)	I_{DP}	Pulse, duty cycle $\leq 1\%$	16	A
Allowable Power Dissipation	P_D	$T_c = 25^\circ\text{C}$	8	W
	P_D	Mounted on ceramic board (750mm ² ×0.8mm)	2	W
Channel Temperature	T_{ch}		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at T_a = 25°C

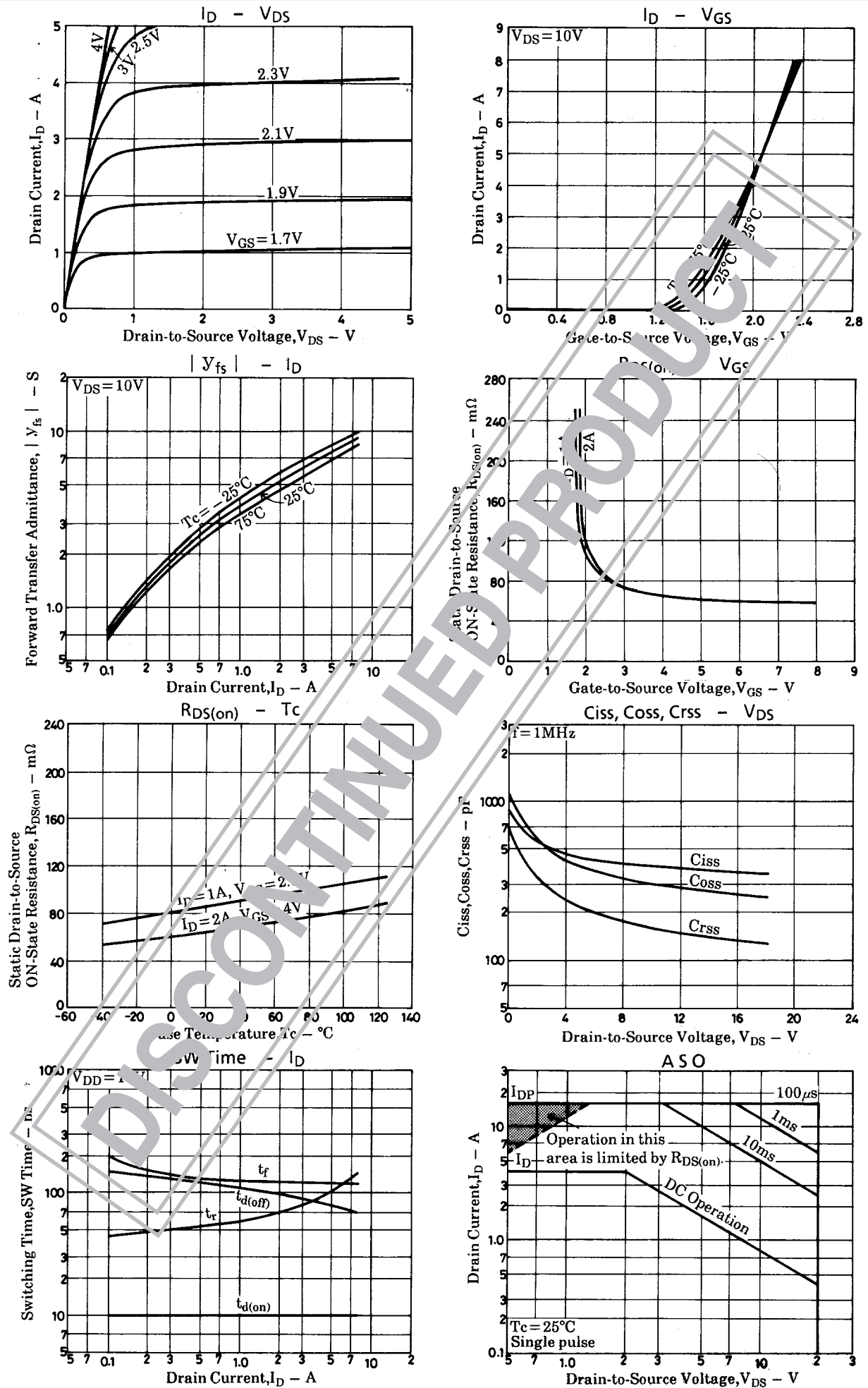
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D=-1mA, V_{GS}=0$	20			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=16V, V_{GS}=0$			100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 8V, V_{DS}=0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1mA$	0.5		1.5	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=2A$	3.5	5		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)}$	$I_D=2A, V_{GS}=4V$		65	85	m Ω
	$R_{DS(on)}$	$I_D=1A, V_{GS}=2.5V$		85	125	m Ω
Input Capacitance	C_{iss}	$V_{DS}=10V, f=1MHz$		400		pF
Output Capacitance	C_{oss}	$V_{DS}=10V, f=1MHz$		300		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=10V, f=1MHz$		160		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit		20		ns
Rise Time	t_r	See specified Test Circuit		70		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit		100		ns
Fall Time	t_f	See specified Test Circuit		120		ns
Diode Forward Voltage	V_{SD}	$I_S=4A, V_{GS}=0$		1.0	1.2	V

· Marking:208

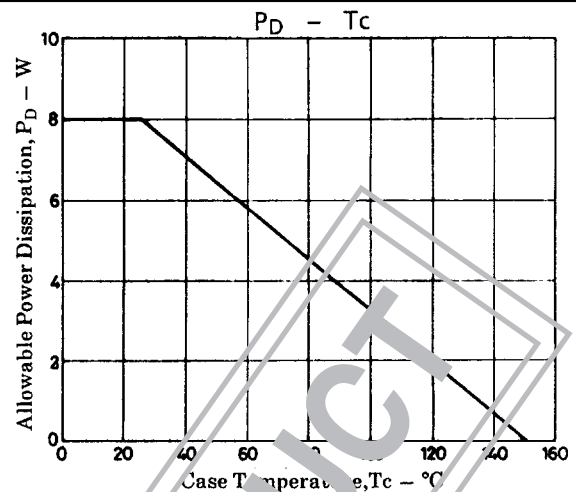
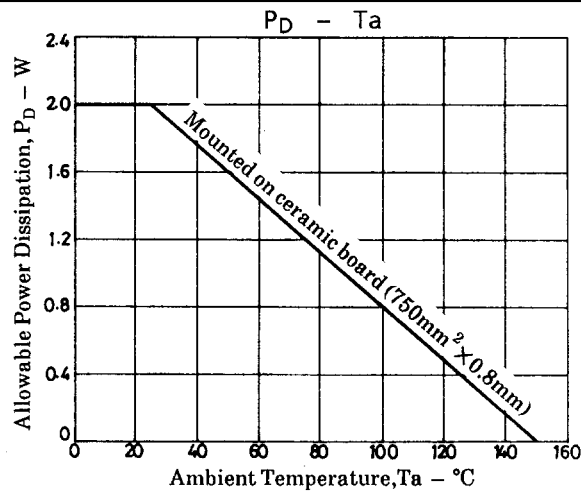
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