



FX604

N-Channel Silicon MOSFET

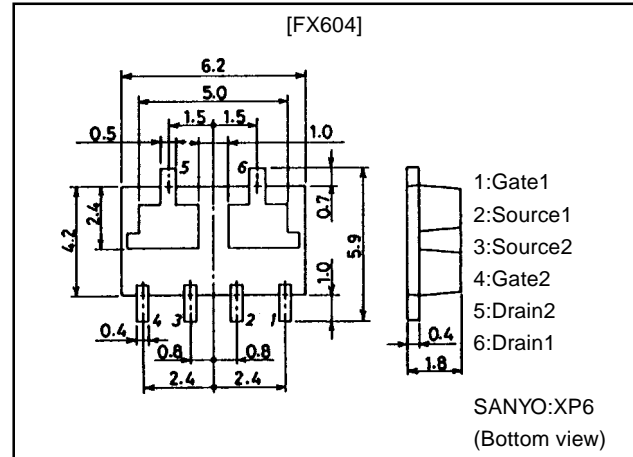
Ultrahigh-Speed Switching Applications

Features

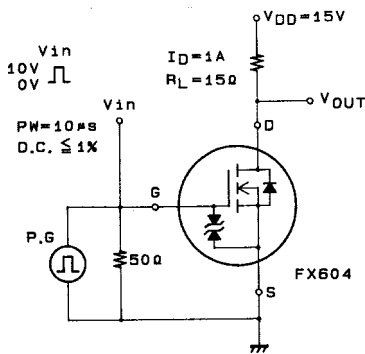
- Composite type composed of two low ON-resistance N-channel MOSFET chips for ultrahigh-speed switching and low-voltage drive.
- Facilitates high-density mounting.
- The FX604 is formed with two chips, each being equivalent to the 2SK1467, placed in one package.
- Matched pair characteristics.

Package Dimensions

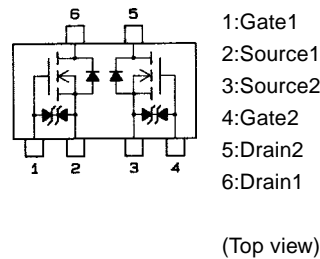
unit:mm
2120



Switching Time Test Circuit



Electrical Connection



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		30	V
Gate-to-Source Voltage	V_{GSS}		±15	V
Drain Current (DC)	I_D		2	A
Drain Current (Pulse)	I_{DP}	$PW \leq 10\mu s$, duty cycle $\leq 1\%$	8	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:604

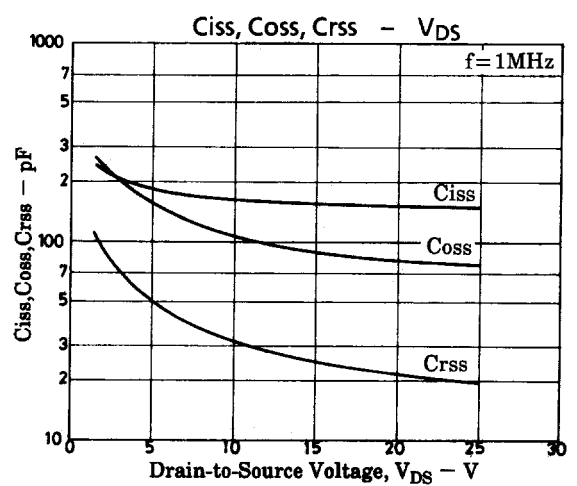
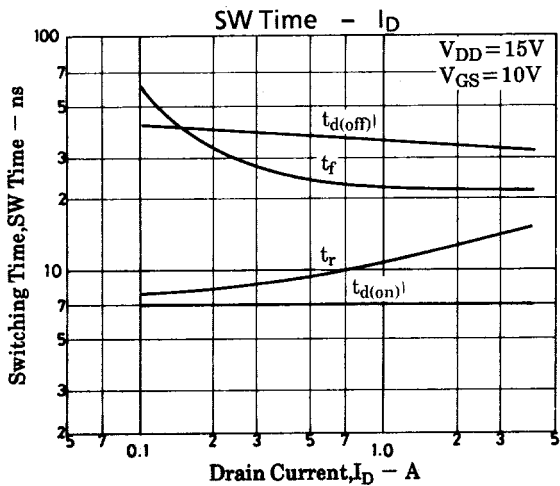
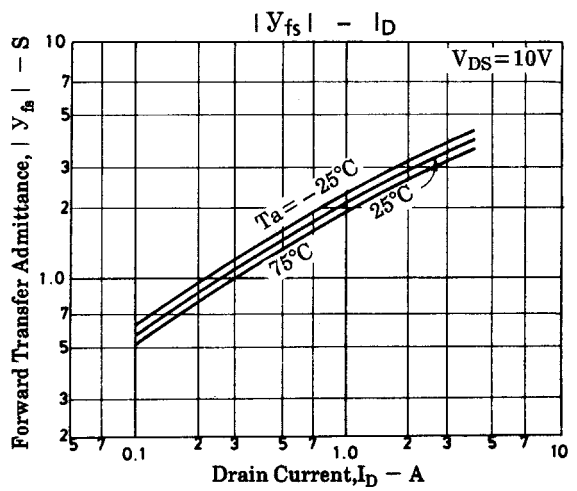
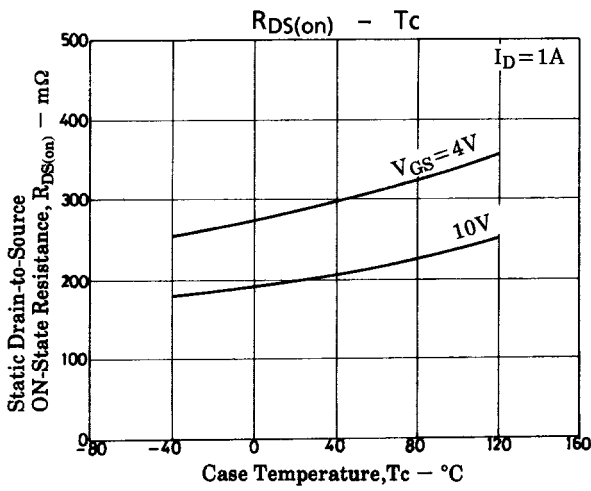
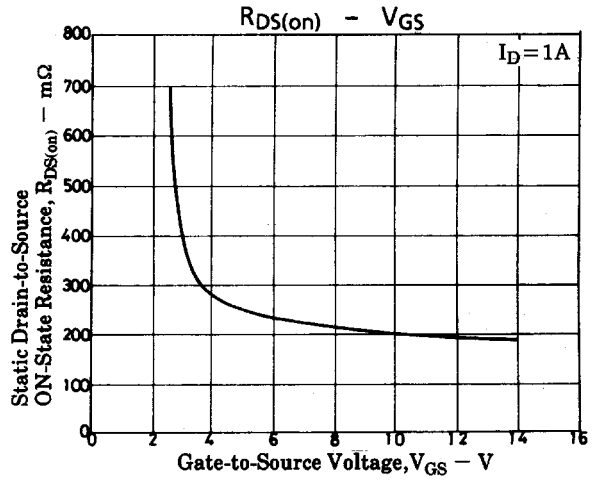
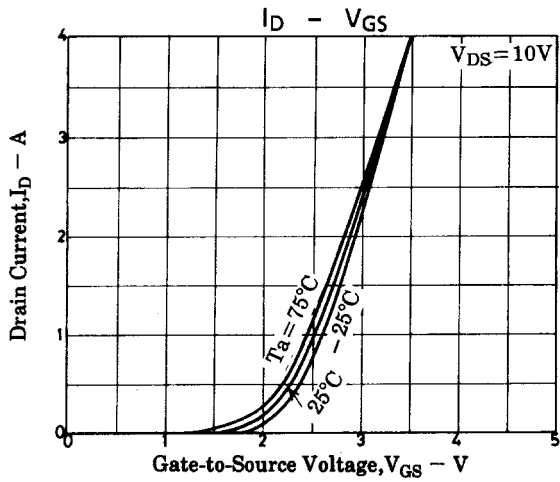
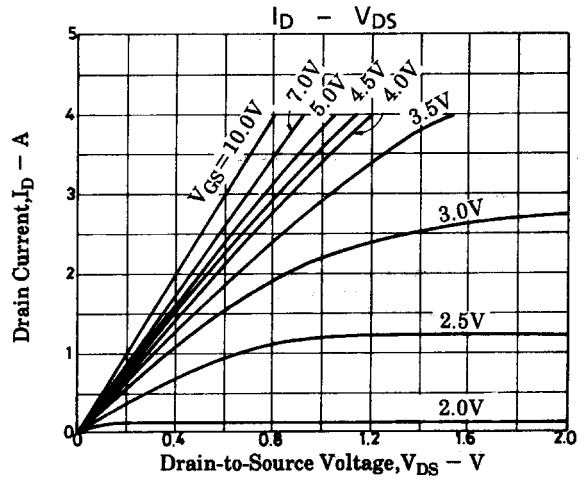
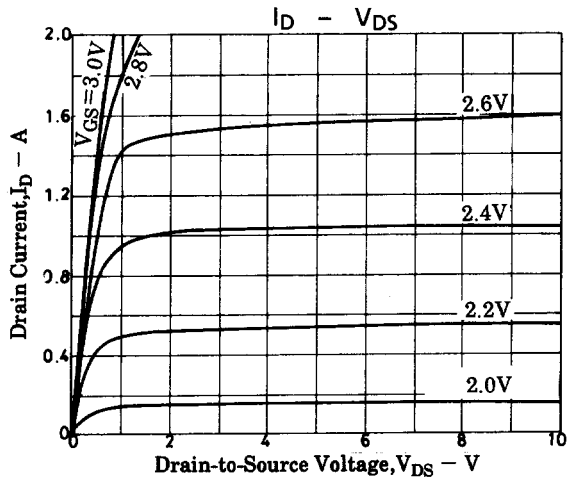
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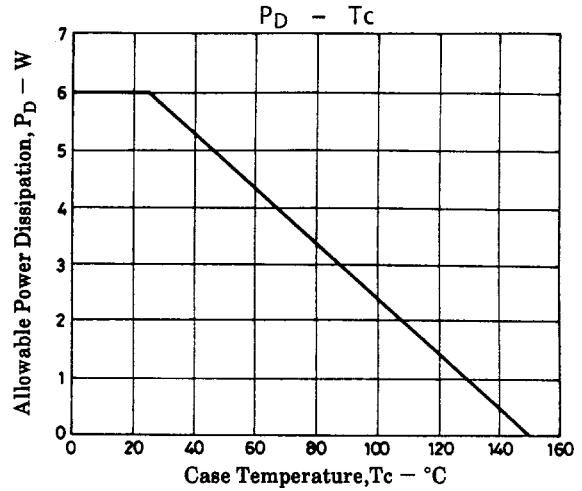
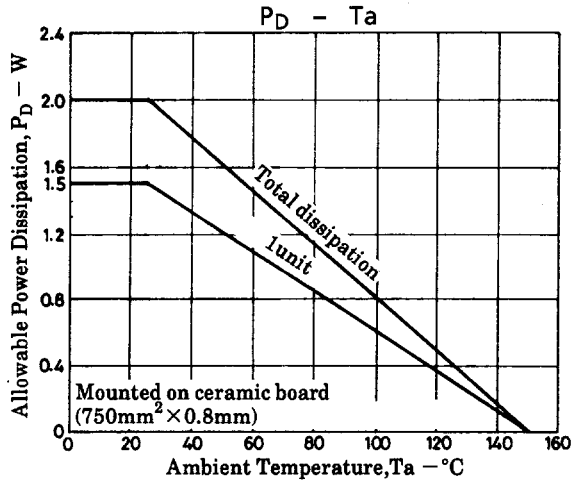
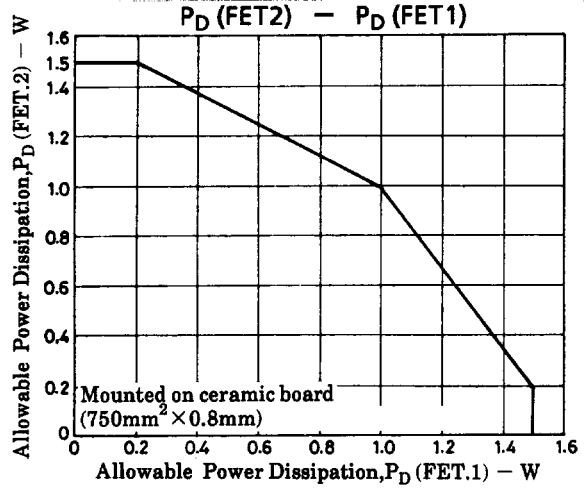
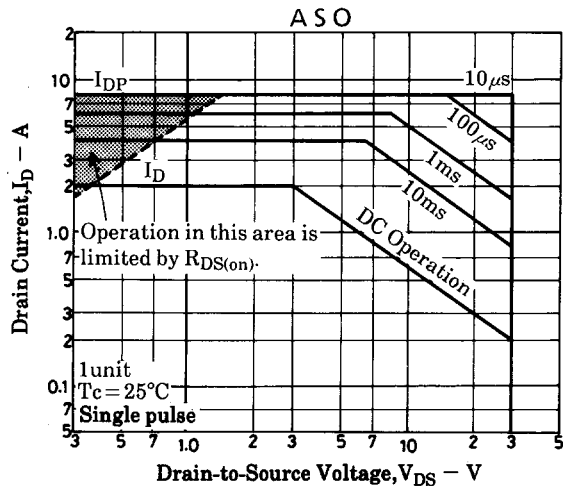
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Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D=1\text{mA}, V_{GS}=0$	20			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=30\text{V}, V_{GS}=0$			100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 12, V_{DS}=0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10\text{V}, I_D=1\text{mA}$	1.0		2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS}=10\text{V}, I_D=1\text{mA}$	1.2	2.0		S
Static Drain-to-Source ON-State Resistance	$R_{DS(on)}$	$I_D=1\text{A}, V_{GS}=10\text{V}$		0.18	0.25	Ω
	$R_{DS(on)}$	$I_D=1\text{A}, V_{GS}=4\text{V}$		0.25	0.38	Ω
Input Capacitance	C_{iss}	$V_{DS}=10\text{V}, f=1\text{MHz}$		170		pF
Output Capacitance	C_{oss}	$V_{DS}=10\text{V}, f=1\text{MHz}$		100		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=10\text{V}, f=1\text{MHz}$		30		pF
Turn-ON Delay Time	$t_{d(on)}$	See Specified Test Circuit		7		ns
Rise Time	t_r	See Specified Test Circuit		11		ns
Turn-OFF Delay Time	$t_{d(off)}$	See Specified Test Circuit		35		ns
Fall Time	t_f	See Specified Test Circuit		25		ns
Diode Forward Voltage	V_{SD}	$I_S=2\text{A}, V_{GS}=0$		1.0		V



FX604



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