



MCH6622

N-Channel Silicon MOSFET

General-Purpose Switching Device Applications

Features

- Low ON-resistance.
- Ultrahigh-speed switching.
- 4V drive.
- Composite type with 2 MOSFETs contained in a single package, facilitating high-density mounting.

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}		±20	V
Drain Current (DC)	I _D		1	A
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	4	A
Allowable Power Dissipation	P _D	Mounted on a ceramic board (900mm ² X0.8mm) 1unit	0.8	W
Channel Temperature	T _{ch}		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source 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			1	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±16V, V _{DS} =0			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{DS} =10V, I _D =1mA	1.2		2.6	V
Forward Transfer Admittance	y _{fs}	V _{DS} =10V, I _D =0.5A	0.45	0.9		S
Static Drain-to-Source On-State Resistance	R _{DS(on)1}	I _D =0.5A, V _{GS} =10V		480	630	mΩ
	R _{DS(on)2}	I _D =0.3A, V _{GS} =4V		640	900	mΩ
Input Capacitance	C _{iss}	V _{DS} =20V, f=1MHz		70		pF
Output Capacitance	C _{oss}	V _{DS} =20V, f=1MHz		9		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} =20V, f=1MHz		6.5		pF

Marking : FW

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SANYO Electric Co.,Ltd. Semiconductor Company

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

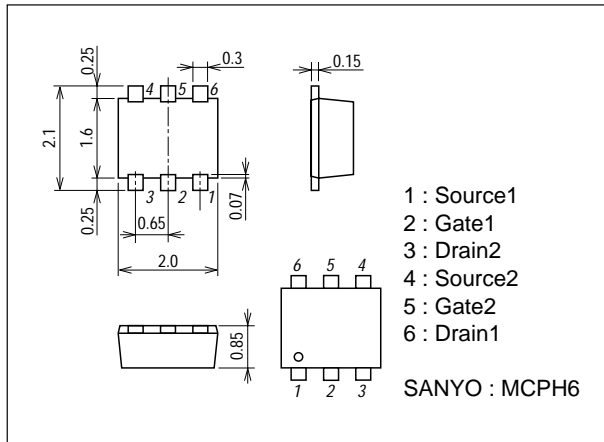
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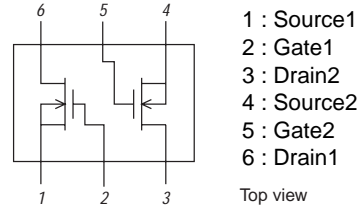
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		5		ns
Rise Time	t_r	See specified Test Circuit.		4		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit.		12		ns
Fall Time	t_f	See specified Test Circuit.		12		ns
Total Gate Charge	Qg	$V_{DS}=30V, V_{GS}=10V, I_D=1A$		3.0		nC
Gate-to-Source Charge	Qgs	$V_{DS}=30V, V_{GS}=10V, I_D=1A$		0.6		nC
Gate-to-Drain "Miller" Charge	Qgd	$V_{DS}=30V, V_{GS}=10V, I_D=1A$		0.6		nC
Diode Forward Voltage	VSD	$I_S=1A, V_{GS}=0$		0.9	1.2	V

Package Dimensions

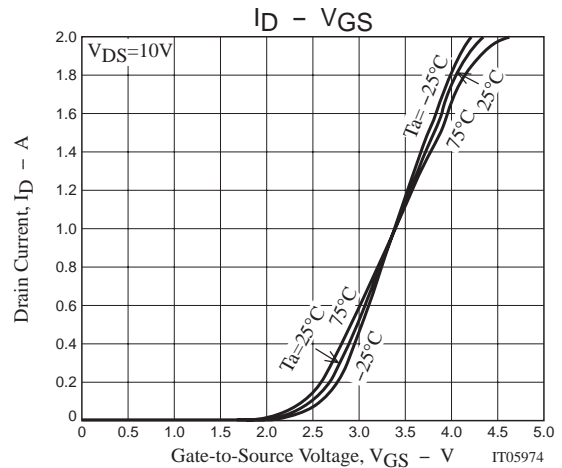
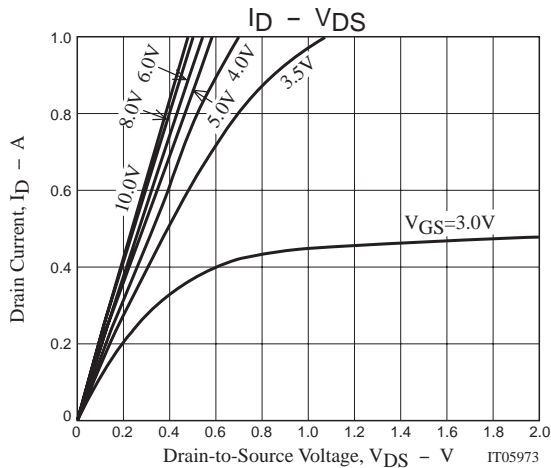
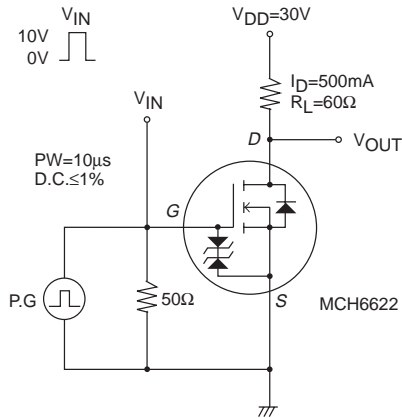
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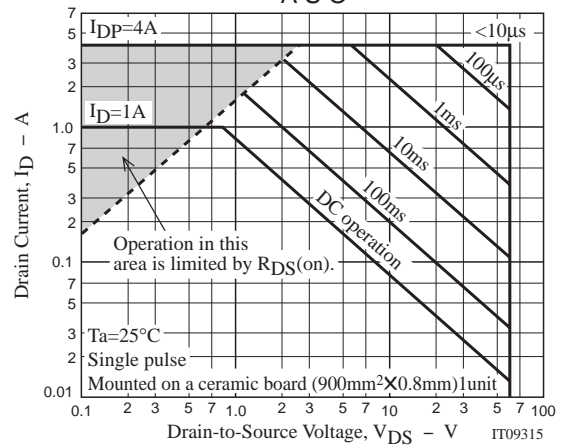
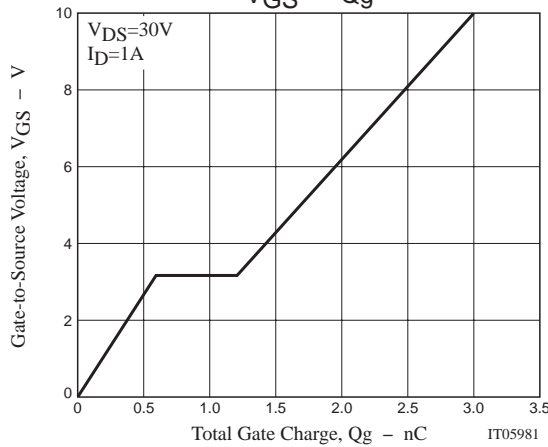
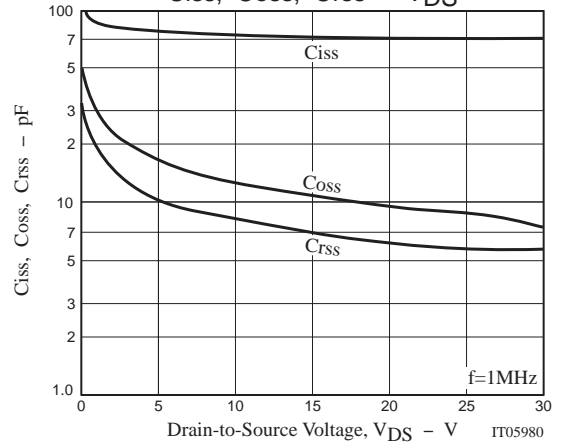
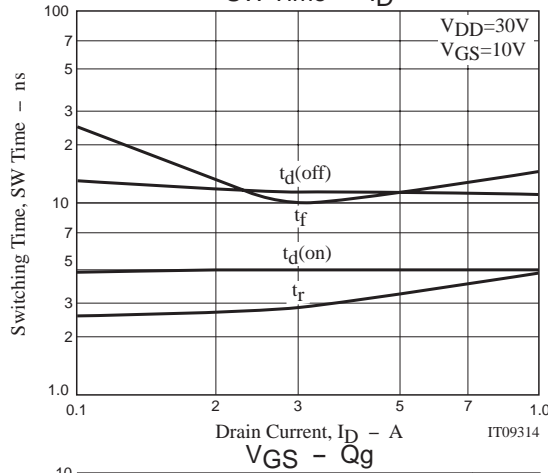
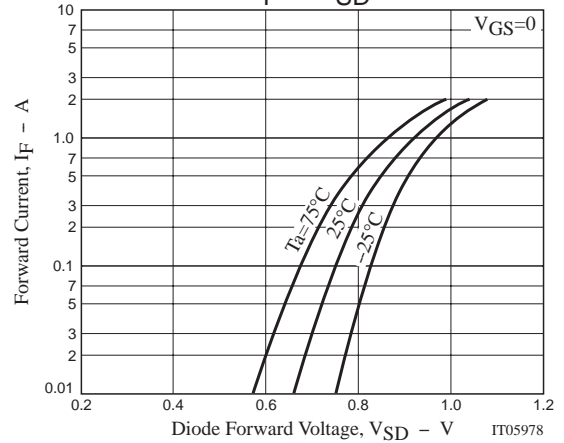
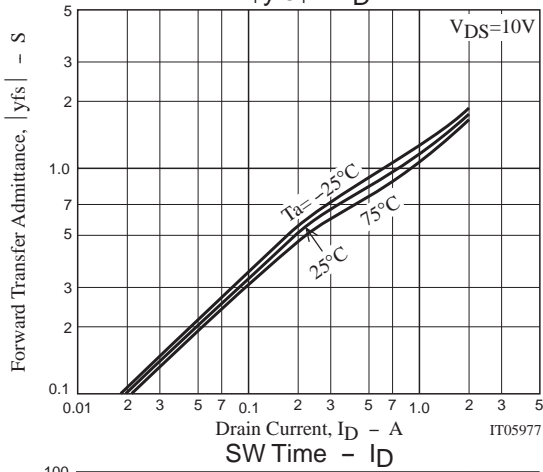
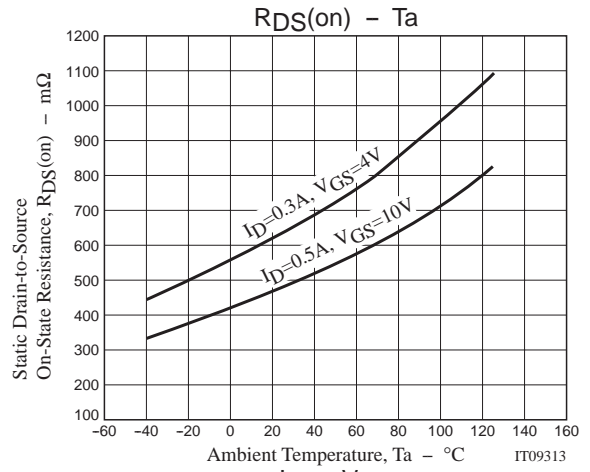
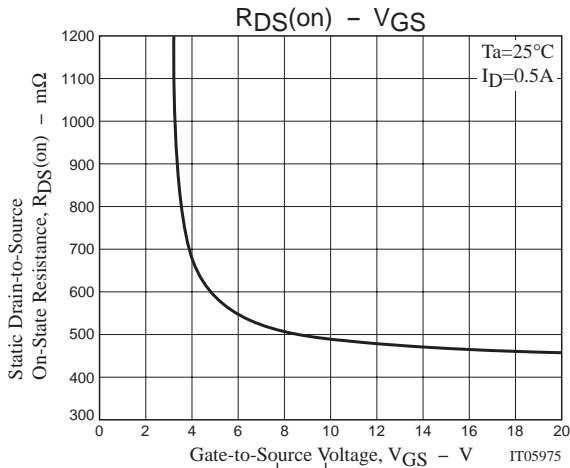
Electrical Connection



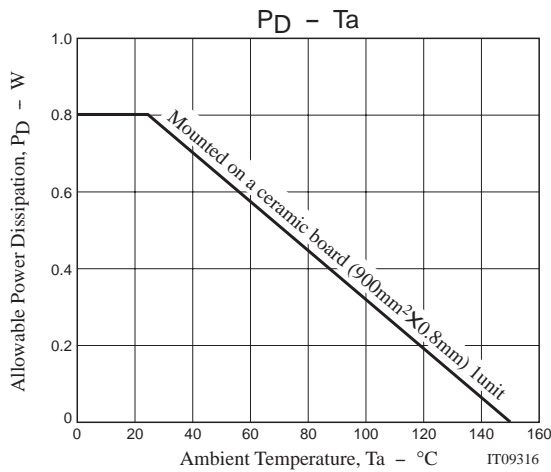
Switching Time Test Circuit



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Note on usage : Since the MCH6622 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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