

SANYO Semiconductors DATA SHEET

P-Channel Silicon MOSFET

MCH6655 — General-Purpose Switching Device **Applications**

Features

- · 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	VDSS		-60	V
Gate-to-Source Voltage	VGSS		±20	V
Drain Current (DC)	ID		-120	mA
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	-480	mA
Allowable Power Dissipation	PD	When mounted on ceramic substrate (900mm²X0.8mm) 1unit	0.6	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Drain-to-Source Breakdown Voltage	V(BR)DSS	I _D =-1mA, V _G S=0V	-60			V
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =-60V, V _{GS} =0V			-1	μΑ
Gate-to-Source Leakage Current	IGSS	VGS=±16V, VDS=0V			±10	μΑ
Cutoff Voltage	VGS(off)	V _{DS} =-10V, I _D =-100μA	-1.2		-2.6	V
Forward Transfer Admittance	yfs	V _{DS} =-10V, I _D =-60mA	100	180		mS
Static Drain-to-Source On-State Resistance	RDS(on)1	ID=-60mA, VGS=-10V		5.1	6.6	Ω
	R _{DS} (on)2	ID=-30mA, VGS=-4V		6.8	9.6	Ω
Input Capacitance	Ciss	V _{DS} =-20V, f=1MHz		13.5		pF
Output Capacitance	Coss	V _{DS} =-20V, f=1MHz		3.4		pF
Reverse Transfer Capacitance	Crss	V _{DS} =-20V, f=1MHz		1.3		pF

Marking: XG Continued on next page.

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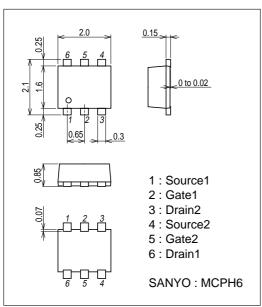
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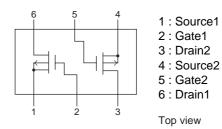
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Turn-ON Delay Time	t _d (on)	See specified Test Circuit.		36.5		ns
Rise Time	t _r	See specified Test Circuit.		38		ns
Turn-OFF Delay Time	t _d (off)	See specified Test Circuit.		455		ns
Fall Time	tf	See specified Test Circuit.		160		ns
Total Gate Charge	Qg	V _{DS} =-30V, V _{GS} =-10V, I _D =-120mA		1.6		nC
Gate-to-Source Charge	Qgs	V _{DS} =-30V, V _{GS} =-10V, I _D =-120mA		0.4		nC
Gate-to-Drain "Miller" Charge	Qgd	V _{DS} =-30V, V _{GS} =-10V, I _D =-120mA		0.16		nC
Diode Forward Voltage	V _{SD}	IS=-120mA, VGS=0V		-0.85	-1.2	V

Package Dimensions

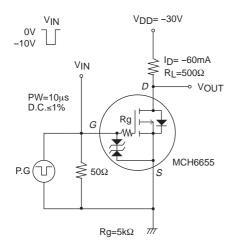
unit : mm (typ) 7022A-006

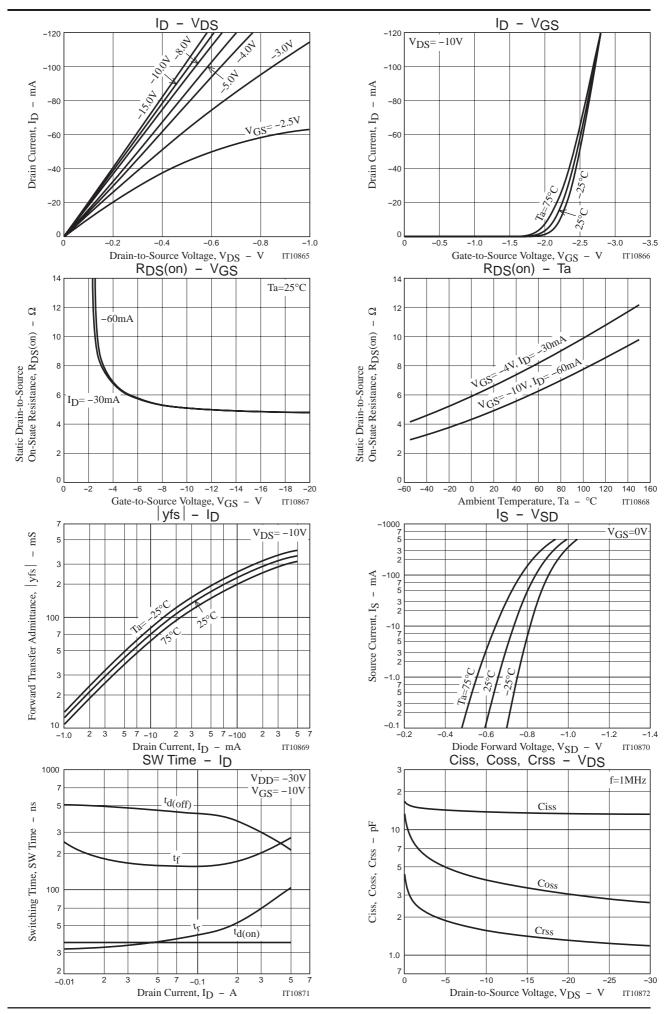


Electrical Connection

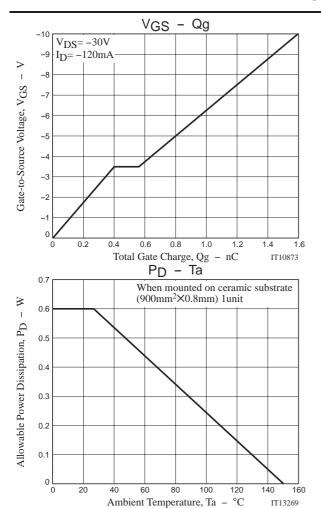


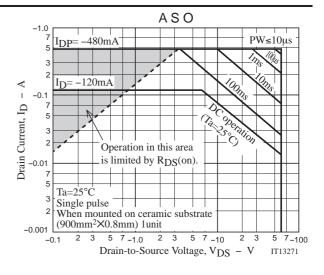
Switching Time Test Circuit





MCH6655





Note on usage: Since the MCH6655 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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