



CPH6621 — P-Channel Silicon MOSFET

General-Purpose Switching Device Applications

Features

- Low ON-resistance.
- 2.5V drive.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		-20	V
Gate-to-Source Voltage	V _{GSS}		±10	V
Drain Current (DC)	I _D		-1.5	A
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	-6.0	A
Allowable Power Dissipation	P _D	Mounted on a ceramic board (900mm ² ×0.8mm) 1unit	0.9	W
Total Power Dissipation	P _D	Mounted on a ceramic board (900mm ² ×0.8mm)	1.2	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} =0V	-20			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =-20V, V _{GS} =0V			-1	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±8V, V _{DS} =0V			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{DS} =-10V, I _D =-1mA	-0.4		-1.3	V
Forward Transfer Admittance	y _{fs}	V _{DS} =-10V, I _D =-0.8A	1.38	2.3		S
Static Drain-to-Source On-State Resistance	R _{DS(on)1}	I _D =-0.8A, V _{GS} =-4V		180	235	mΩ
	R _{DS(on)2}	I _D =-0.4A, V _{GS} =-2.5V		240	340	mΩ
Input Capacitance	C _{iss}	V _{DS} =-10V, f=1MHz		290		pF
Output Capacitance	C _{oss}	V _{DS} =-10V, f=1MHz		40		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} =-10V, f=1MHz		25		pF

Marking : WH

Continued on next page.

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CPH6621

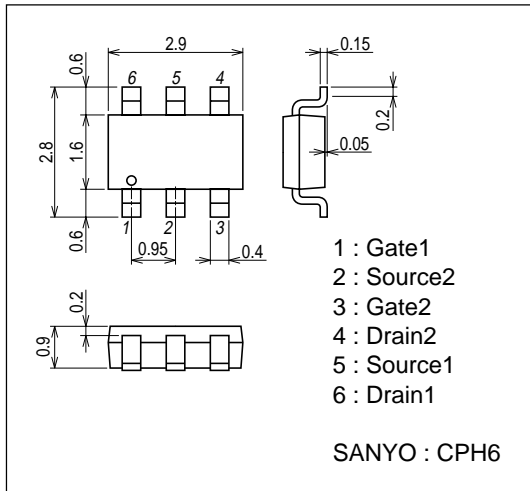
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		10		ns
Rise Time	t_r	See specified Test Circuit.		35		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit.		32		ns
Fall Time	t_f	See specified Test Circuit.		27		ns
Total Gate Charge	Q_g	$V_{DS}=-10V, V_{GS}=-4V, I_D=-1.5A$		3.2		nC
Gate-to-Source Charge	Q_{gs}	$V_{DS}=-10V, V_{GS}=-4V, I_D=-1.5A$		0.8		nC
Gate-to-Drain "Miller" Charge	Q_{gd}	$V_{DS}=-10V, V_{GS}=-4V, I_D=-1.5A$		0.6		nC
Diode Forward Voltage	V_{SD}	$I_S=-1.5A, V_{GS}=0V$		-0.87	-1.5	V

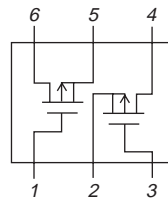
Package Dimensions

unit : mm (typ)

7018A-010



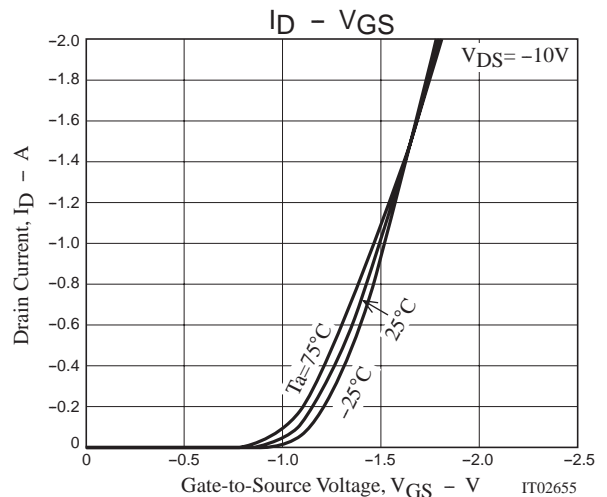
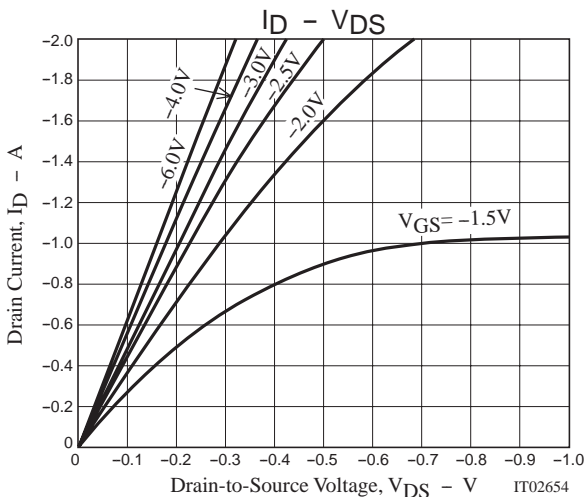
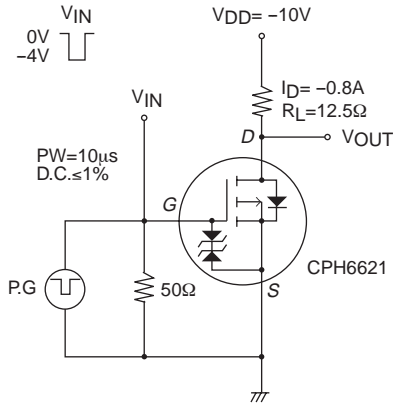
Electrical Connection

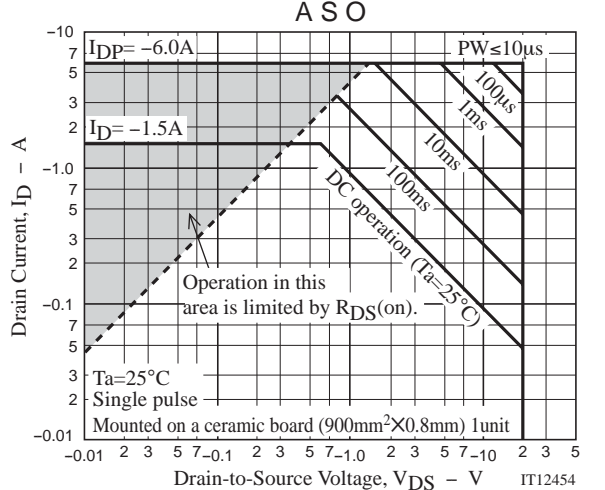
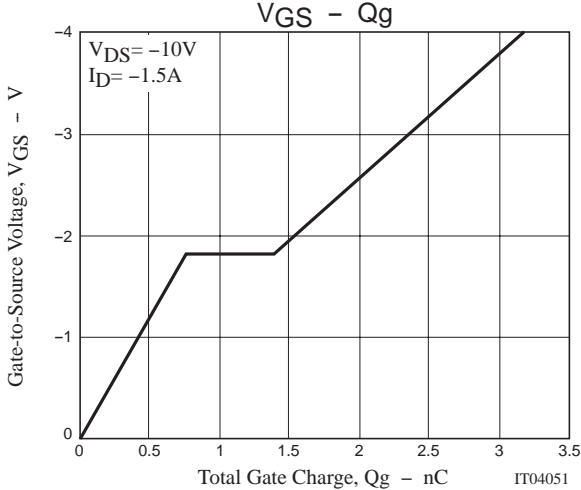
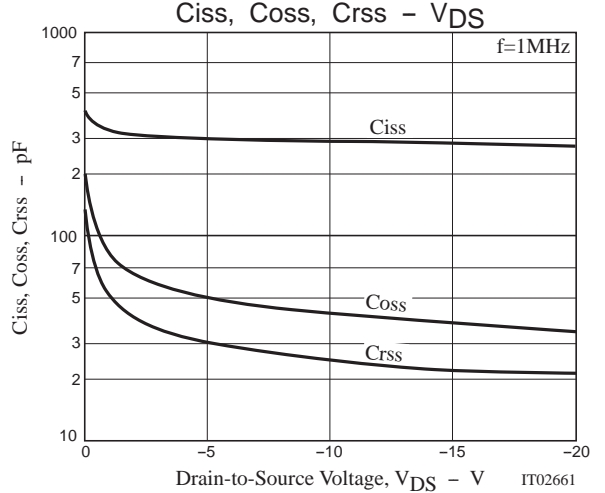
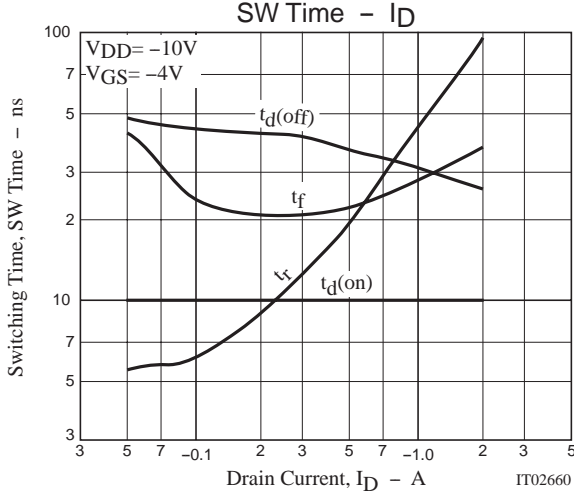
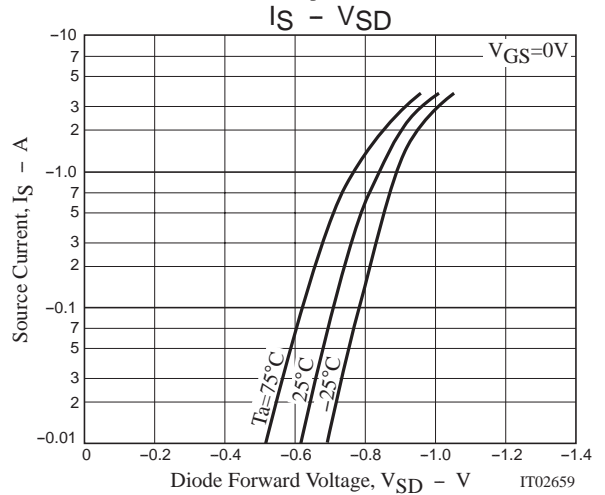
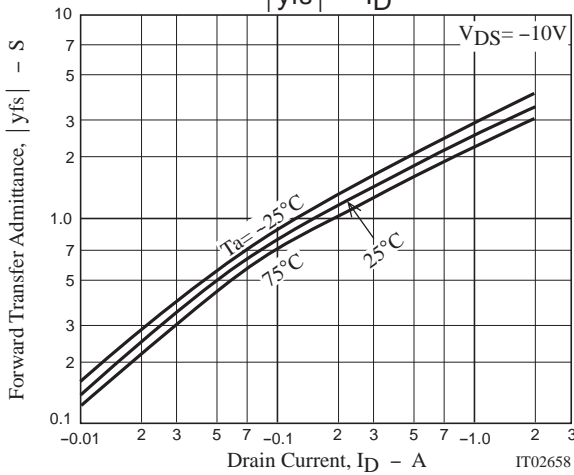
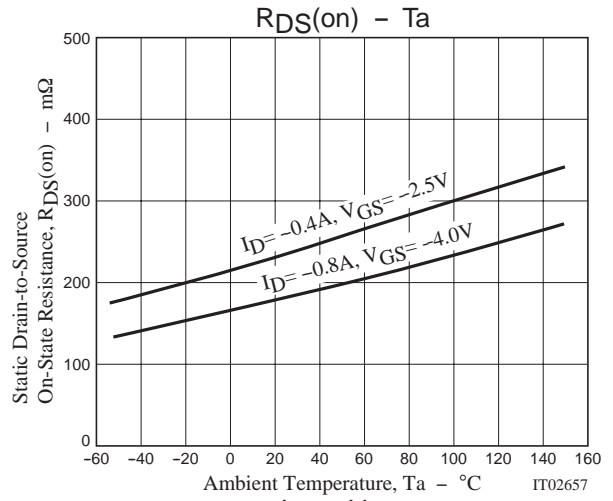
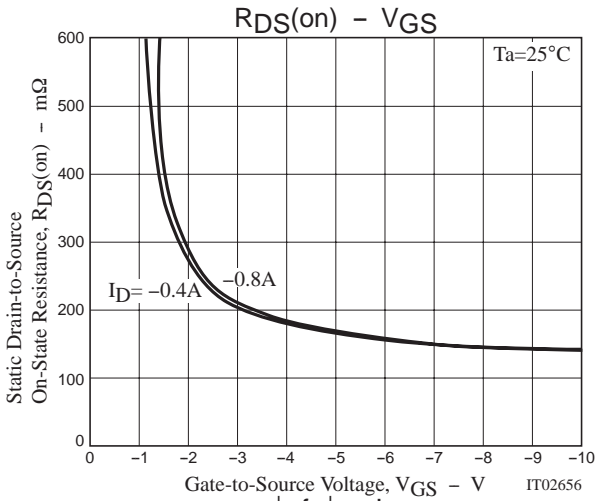


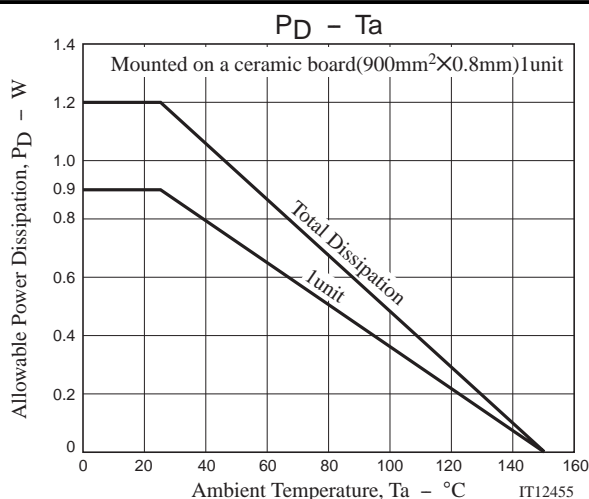
- 1 : Gate1
- 2 : Source2
- 3 : Gate2
- 4 : Drain2
- 5 : Source1
- 6 : Drain1

Top view

Switching Time Test Circuit







Note on usage : Since the CPH6621 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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