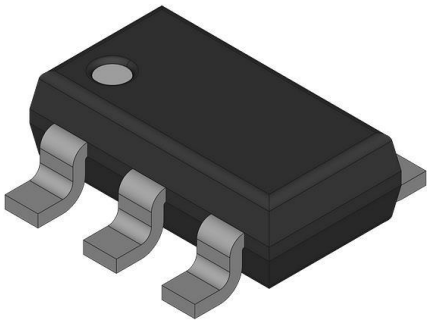


# CPH6604-TL-E Datasheet

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DiGi Electronics Part Number	CPH6604-TL-E-DG
Manufacturer	<a href="#">Sanyo</a>
Manufacturer Product Number	CPH6604-TL-E
Description	N-CHANNEL SILICON MOSFET
Detailed Description	



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

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## Purchase and inquiry

Manufacturer Product Number:

CPH6604-TL-E

Series:

\*

Manufacturer:

Sanyo

Product Status:

Active

## Environmental & Export classification

Moisture Sensitivity Level (MSL):

Vendor Undefined

REACH Status:

Vendor Undefined



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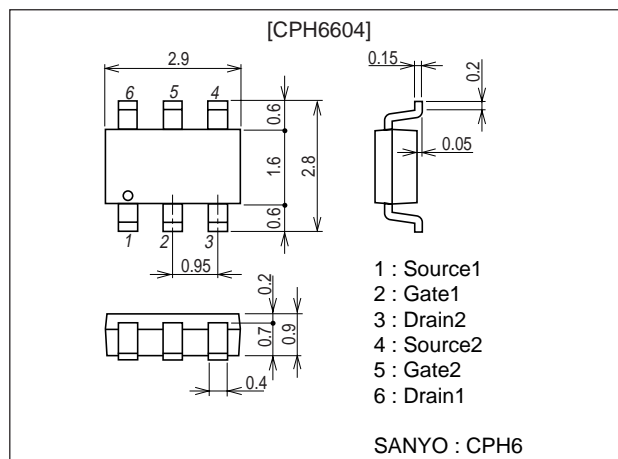
## CPH6604 — N-Channel Silicon MOSFET Ultrahigh-Speed Switching Applications

### Features

- Low ON-resistance.
- Ultrahigh-speed switching.
- 4V drive.

### Package Dimensions

unit : mm  
2202



### Specifications

#### Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V <sub>DSS</sub>		30	V
Gate-to-Source Voltage	V <sub>GSS</sub>		±20	V
Drain Current (DC)	I <sub>D</sub>		2.0	A
Drain Current (Pulse)	I <sub>DP</sub>	PW≤10μs, duty cycle≤1%	8.0	A
Allowable Power Dissipation	P <sub>D</sub>	Mounted on a ceramic board (900mm²×0.8mm)1unit	0.9	W
Channel Temperature	T <sub>ch</sub>		150	°C
Storage Temperature	T <sub>stg</sub>		-55 to +150	°C

#### Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	V <sub>(BR)DSS</sub>	I <sub>D</sub> =1mA, V <sub>GS</sub> =0	30			V
Zero-Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =30V, V <sub>GS</sub> =0			1	μA
Gate-to-Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> =±16V, V <sub>DS</sub> =0			±10	μA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =1mA	1.2		2.6	V
Forward Transfer Admittance	y <sub>fs</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =1A	1.3	1.8		S
Static Drain-to-Source On-State Resistance	R <sub>DS(on)1</sub>	I <sub>D</sub> =1A, V <sub>GS</sub> =10V		115	150	mΩ
	R <sub>DS(on)2</sub>	I <sub>D</sub> =0.5A, V <sub>GS</sub> =4V		190	270	mΩ

Marking : FP

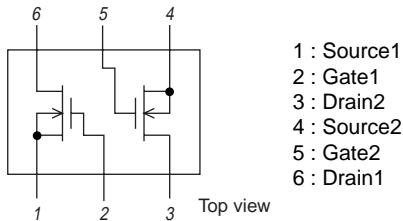
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# CPH6604

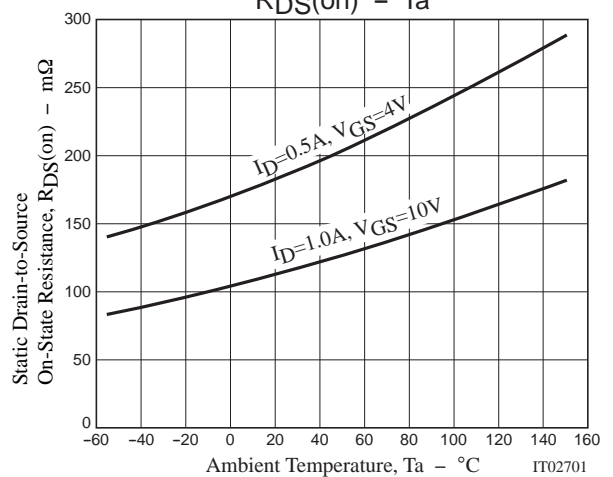
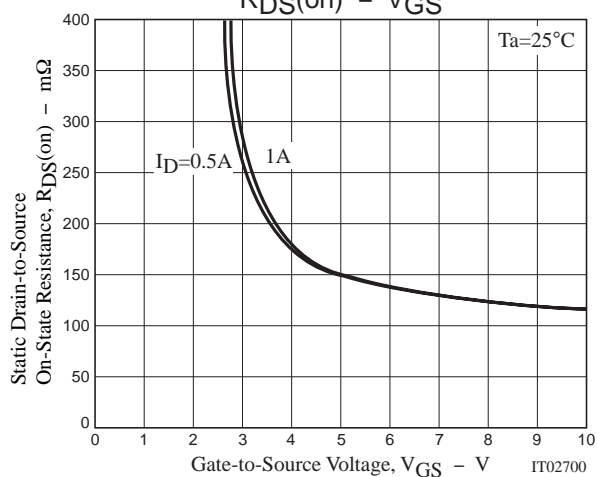
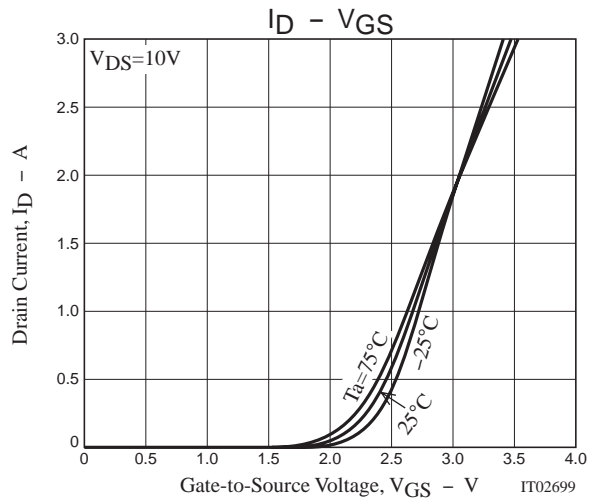
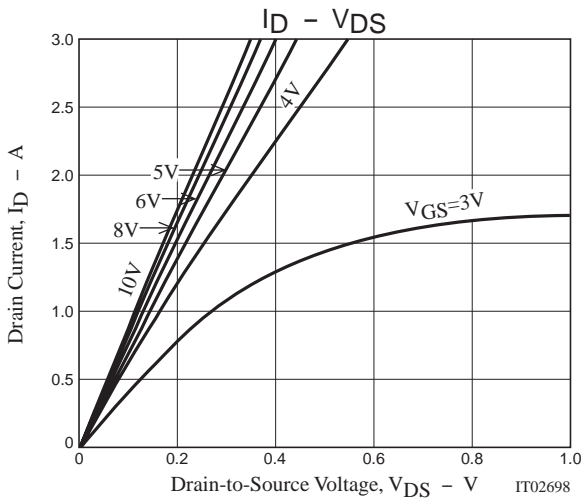
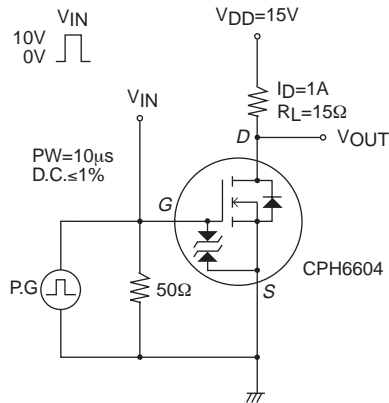
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	Ciss	V <sub>DS</sub> =10V, f=1MHz		120		pF
Output Capacitance	Coss	V <sub>DS</sub> =10V, f=1MHz		30		pF
Reverse Transfer Capacitance	Crss	V <sub>DS</sub> =10V, f=1MHz		15		pF
Turn-ON Delay Time	t <sub>d(on)</sub>	See specified Test Circuit.		6		ns
Rise Time	t <sub>r</sub>	See specified Test Circuit.		4		ns
Turn-OFF Delay Time	t <sub>d(off)</sub>	See specified Test Circuit.		17		ns
Fall Time	t <sub>f</sub>	See specified Test Circuit.		5		ns
Total Gate Charge	Qg	V <sub>DS</sub> =10V, V <sub>GS</sub> =10V, I <sub>D</sub> =2.0A		3.6		nC
Gate-to-Source Charge	Qgs	V <sub>DS</sub> =10V, V <sub>GS</sub> =10V, I <sub>D</sub> =2.0A		0.6		nC
Gate-to-Drain "Miller" Charge	Qgd	V <sub>DS</sub> =10V, V <sub>GS</sub> =10V, I <sub>D</sub> =2.0A		0.5		nC
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> =2.0A, V <sub>GS</sub> =0		0.87	1.2	V

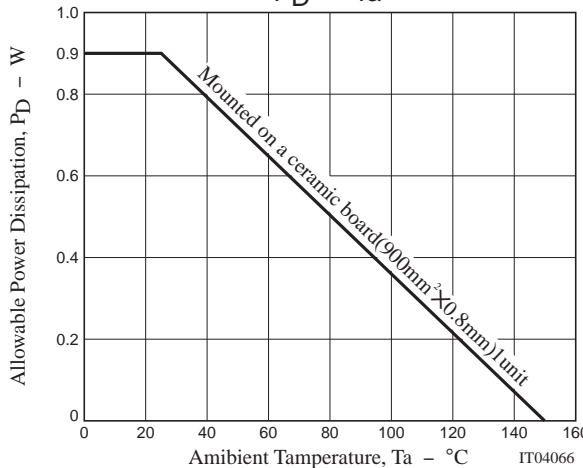
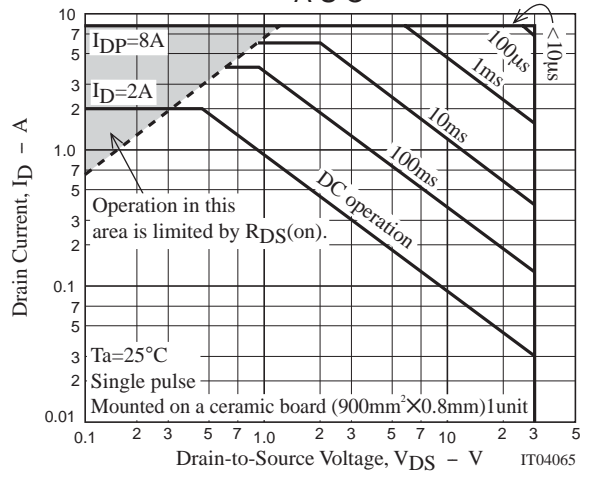
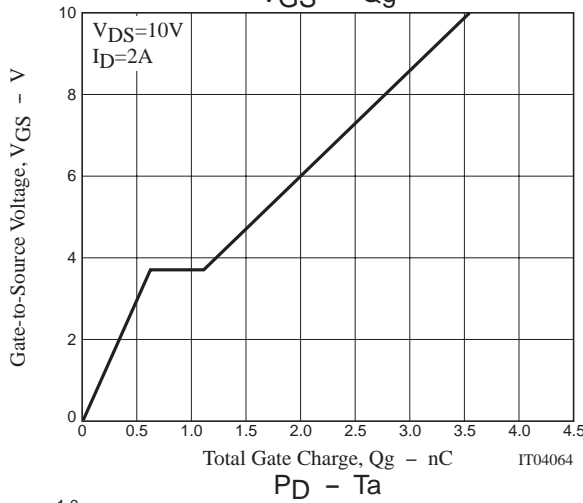
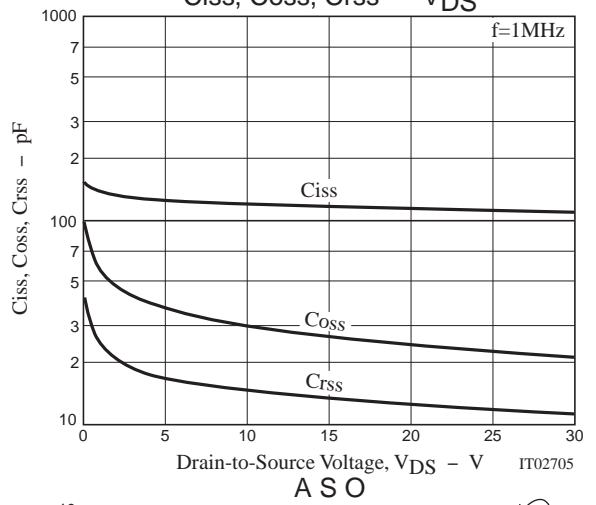
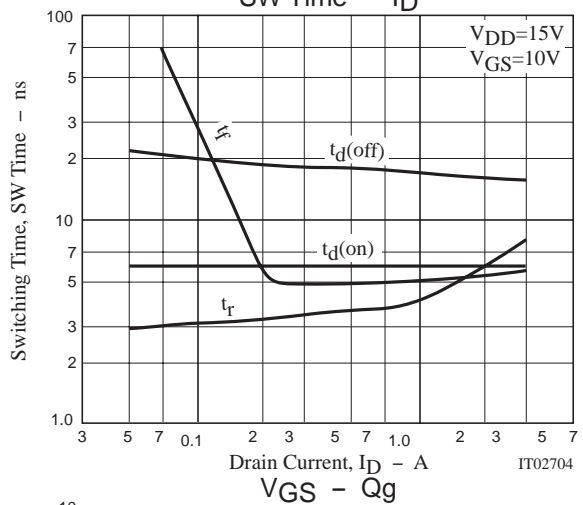
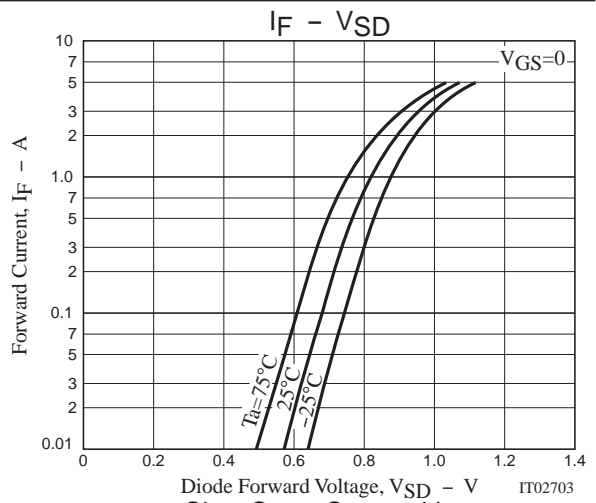
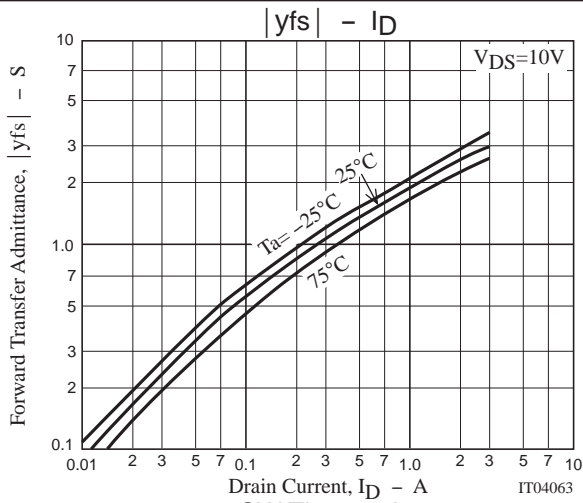
## Electrical Connection



## Switching Time Test Circuit



CPH6604



## CPH6604

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