



SANYO Semiconductors
DATA SHEET

N-Channel Silicon MOSFET
CPH3448 — General-Purpose Switching Device
Applications

Features

- 1.8V drive
- Halogen free compliance

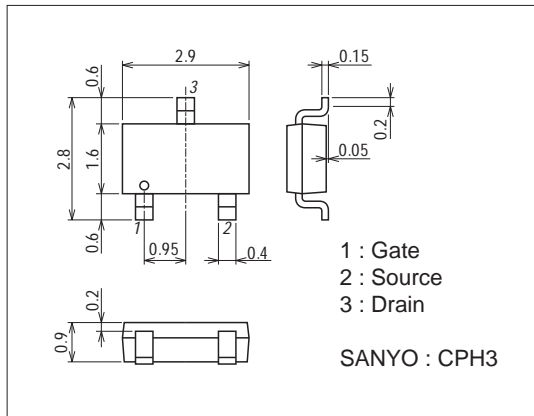
Specifications

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}		±12	V
Drain Current (DC)	I _D		4	A
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	16	A
Allowable Power Dissipation	P _D	When mounted on ceramic substrate (900mm ² ×0.8mm)	1.0	W
Channel Temperature	T _{ch}		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Package Dimensions

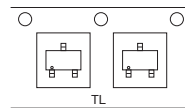
unit : mm (typ)
7015A-004



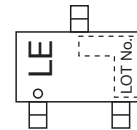
Product & Package Information

- Package : CPH3
- JEITA, JEDEC : SC-96, SC-95, SOT346, SOT457
- Minimum Packing Quantity : 3,000 pcs./reel

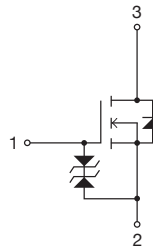
Packing Type: TL



Marking



Electrical Connection

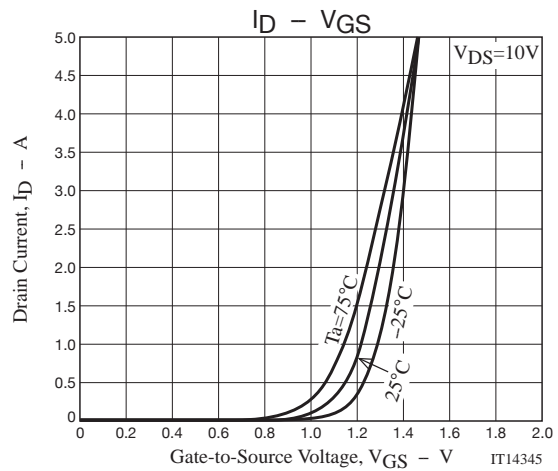
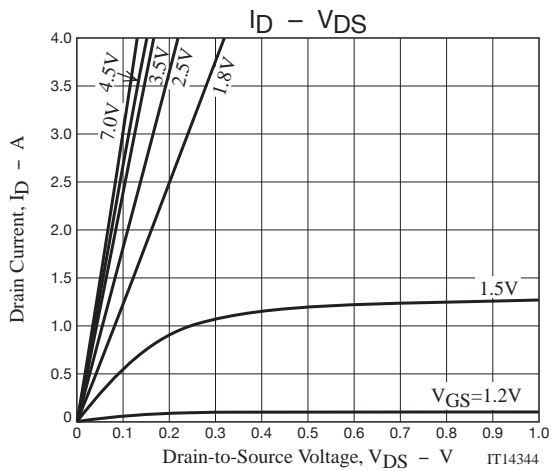
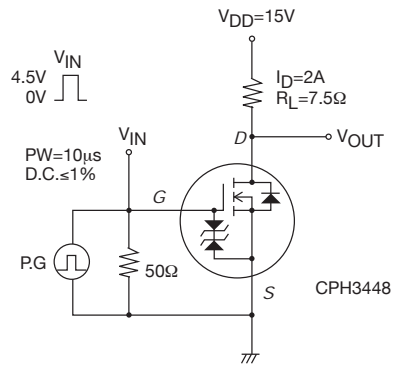


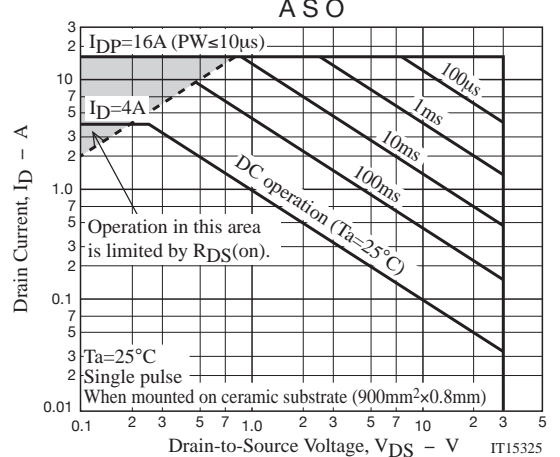
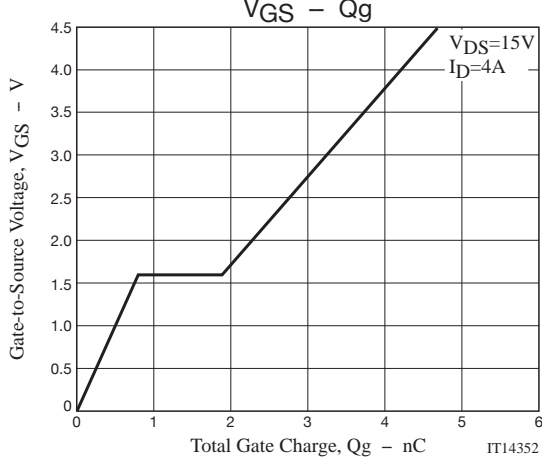
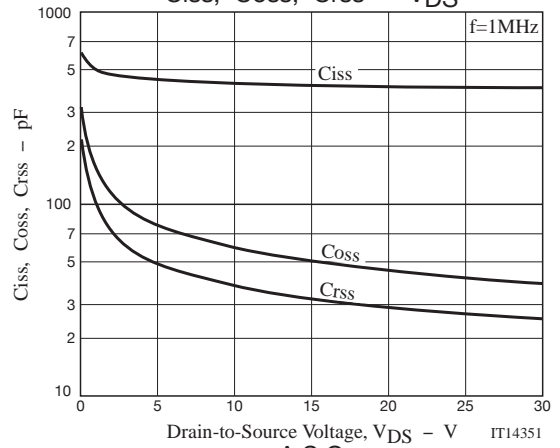
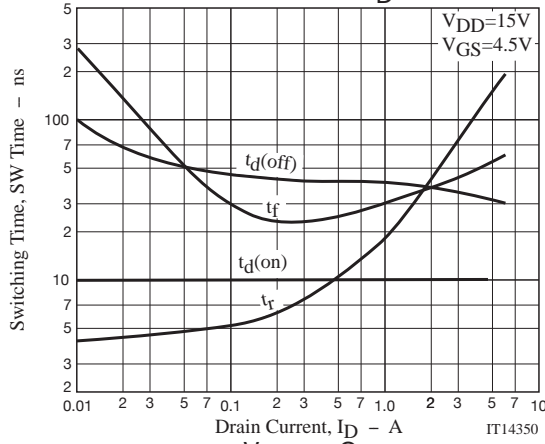
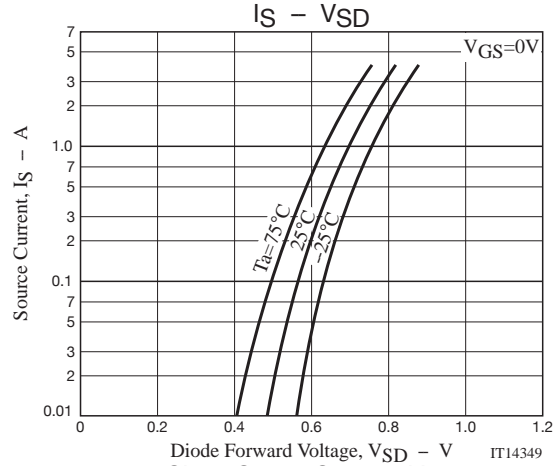
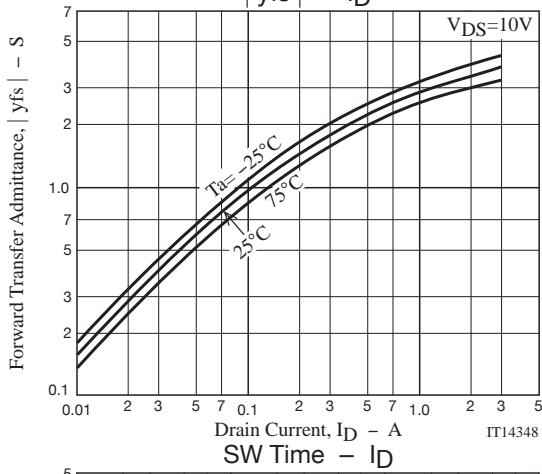
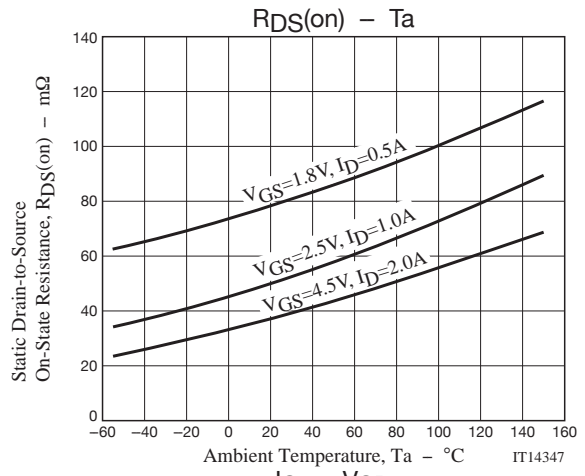
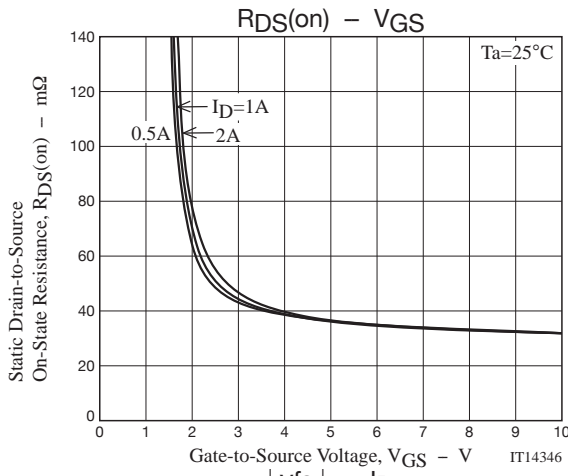
CPH3448

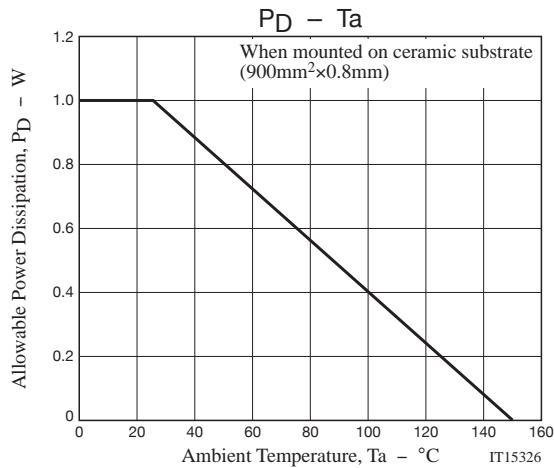
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=1mA, V_{GS}=0V$	30			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=30V, V_{GS}=0V$			1	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 8V, V_{DS}=0V$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1mA$	0.4		1.3	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10V, I_D=2A$		3.4		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D=2A, V_{GS}=4.5V$		38	50	$m\Omega$
	$R_{DS(on)2}$	$I_D=1A, V_{GS}=2.5V$		51	72	$m\Omega$
	$R_{DS(on)3}$	$I_D=0.5A, V_{GS}=1.8V$		80	130	$m\Omega$
Input Capacitance	C_{iss}	$V_{DS}=10V, f=1MHz$		430		pF
Output Capacitance	C_{oss}	$V_{DS}=10V, f=1MHz$		59		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=10V, f=1MHz$		38		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit.		10		ns
Rise Time	t_r	See specified Test Circuit.		41		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit.		36		ns
Fall Time	t_f	See specified Test Circuit.		37		ns
Total Gate Charge	Q_g	$V_{DS}=15V, V_{GS}=4.5V, I_D=4A$		4.7		nC
Gate-to-Source Charge	Q_{gs}	$V_{DS}=15V, V_{GS}=4.5V, I_D=4A$		0.8		nC
Gate-to-Drain "Miller" Charge	Q_{gd}	$V_{DS}=15V, V_{GS}=4.5V, I_D=4A$		1.1		nC
Diode Forward Voltage	V_{SD}	$I_S=4A, V_{GS}=0V$		0.82	1.2	V

Switching Time Test Circuit







Note on usage : Since the CPH3448 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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