



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

P-Channel Silicon MOSFET

## CPH3360 — General-Purpose Switching Device Applications

### Features

- ON-resistance  $R_{DS(on)1}=233m\Omega$ (typ.)
- 4V drive
- Halogen free compliance

### Specifications

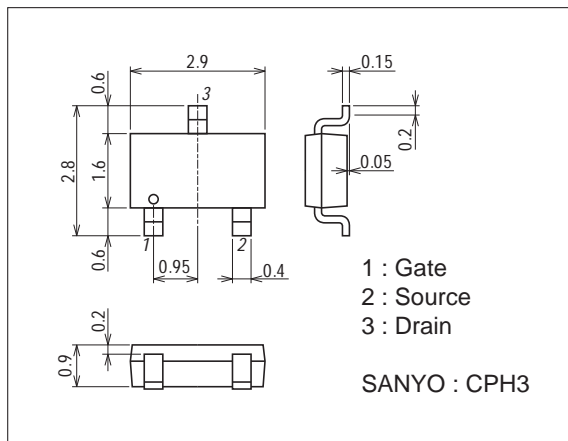
Absolute Maximum Ratings at  $T_a=25^\circ\text{C}$ 

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	$V_{DSS}$		-30	V
Gate-to-Source Voltage	$V_{GSS}$		$\pm 20$	V
Drain Current (DC)	$I_D$		-1.6	A
Drain Current (Pulse)	$I_{DP}$	$PW \leq 10\mu\text{s}$ , duty cycle $\leq 1\%$	-6.4	A
Allowable Power Dissipation	$P_D$	When mounted on ceramic substrate (900mm <sup>2</sup> ×0.8mm)	0.9	W
Channel Temperature	$T_{ch}$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

### Package Dimensions

unit : mm (typ)

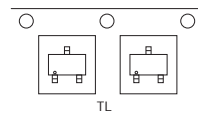
7015A-004



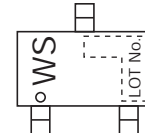
### Product & Package Information

- Package : CPH3
- JEITA, JEDEC : SC-59, TO-236, SOT-23
- Minimum Packing Quantity : 3,000 pcs./reel

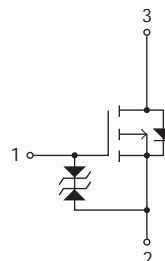
### Packing Type: TL



### Marking



### Electrical Connection

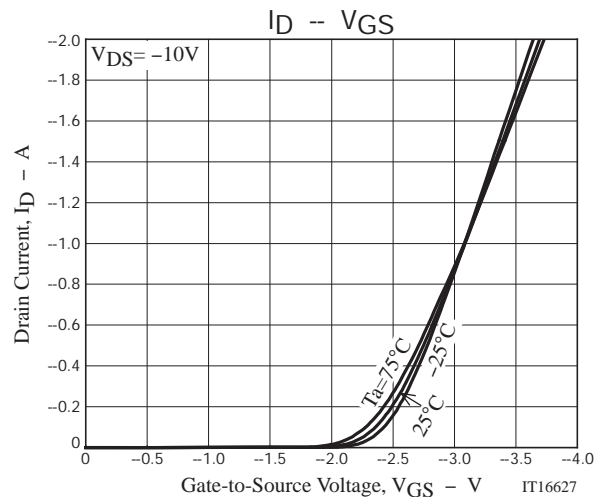
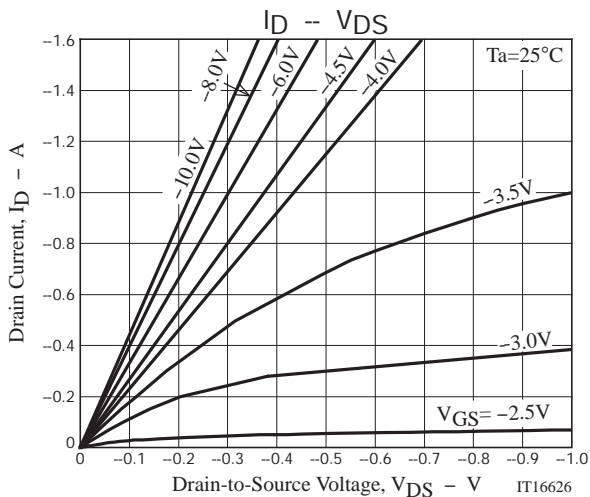
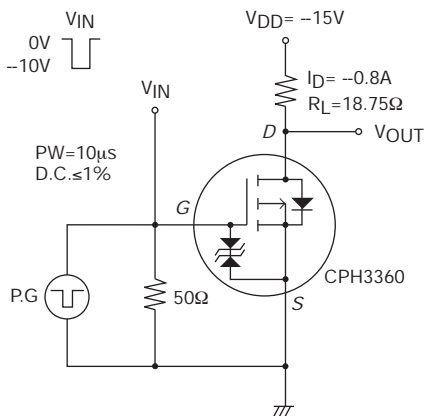


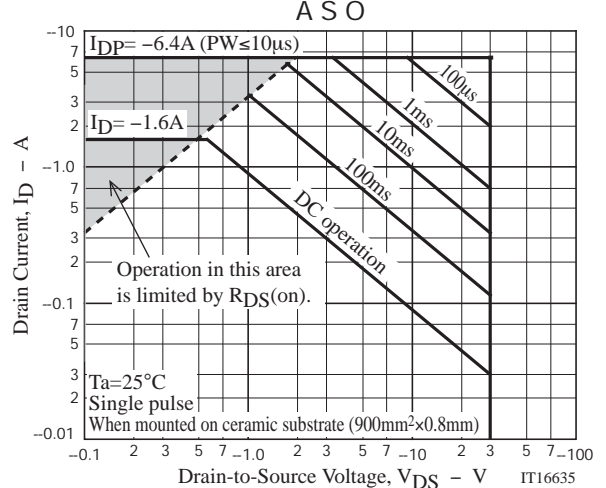
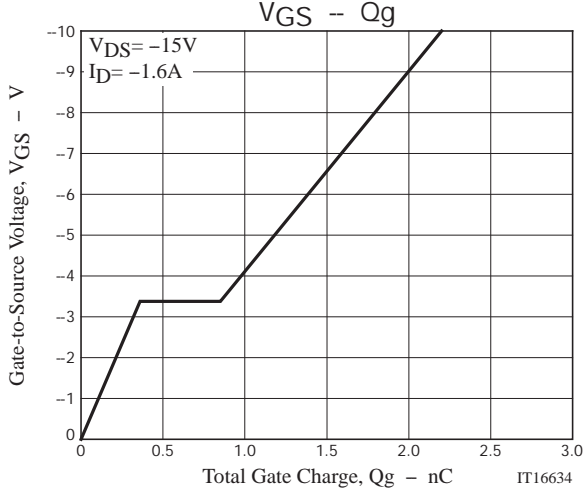
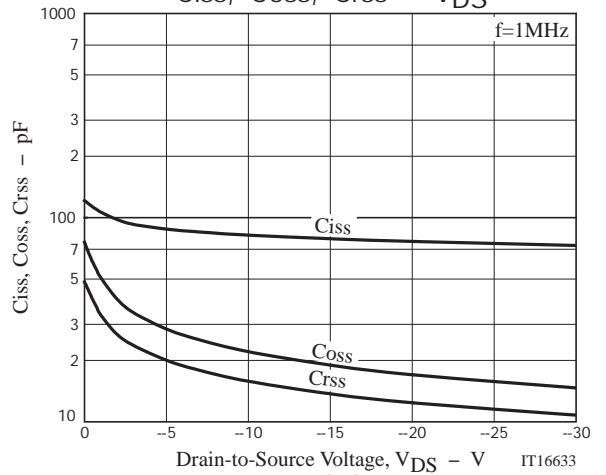
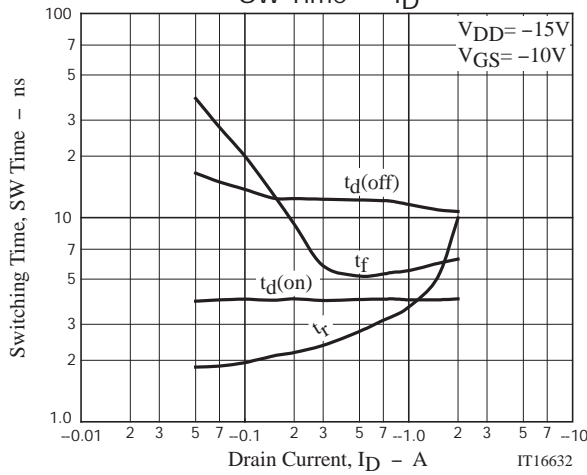
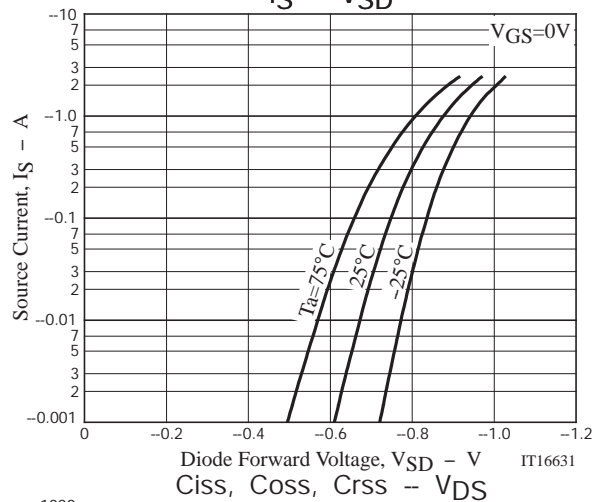
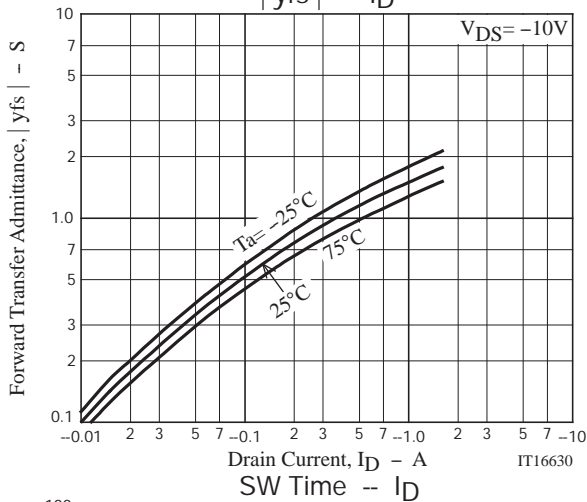
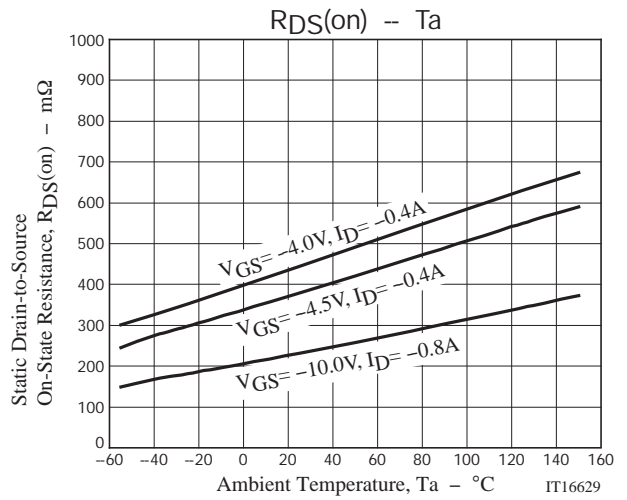
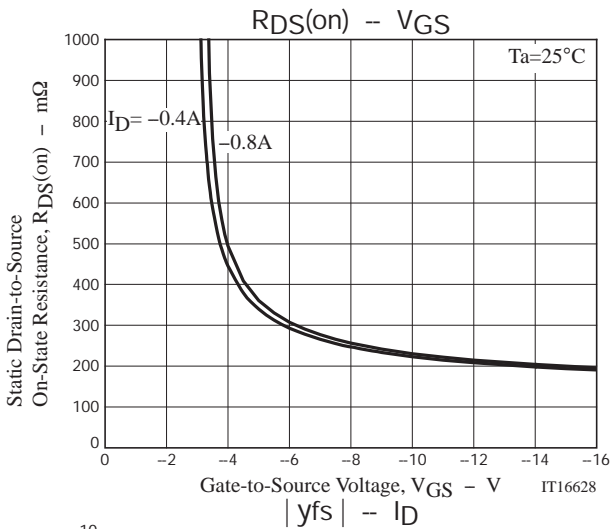
# CPH3360

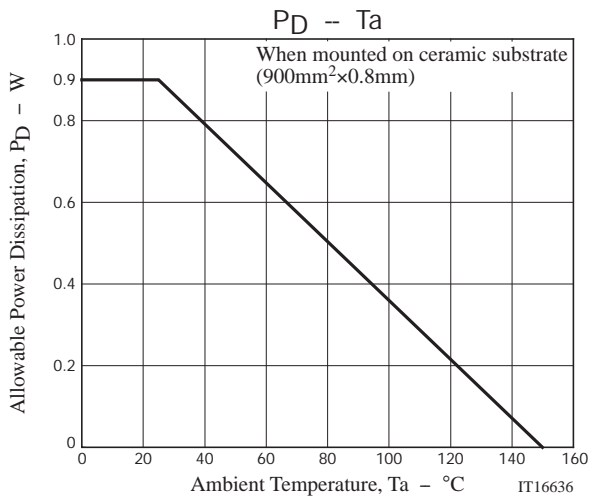
## Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	V(BR)DSS	ID=-1mA, VGS=0V	-30			V
Zero-Gate Voltage Drain Current	IDSS	VDS=-30V, VGS=0V			-1	μA
Gate-to-Source Leakage Current	IGSS	VGS=±16V, VDS=0V			±10	μA
Cutoff Voltage	VGS(off)	VDS=-10V, ID=-1mA	-1.2		-2.6	V
Forward Transfer Admittance	yfs	VDS=-10V, ID=-0.8A		1.3		S
Static Drain-to-Source On-State Resistance	RDS(on)1	ID=-0.8A, VGS=-10V		233	303	mΩ
	RDS(on)2	ID=-0.4A, VGS=-4.5V		380	532	mΩ
	RDS(on)3	ID=-0.4A, VGS=-4V		441	617	mΩ
Input Capacitance	Ciss	VDS=-10V, f=1MHz		82		pF
Output Capacitance	Coss			22		pF
Reverse Transfer Capacitance	Crss			16		pF
Turn-ON Delay Time	td(on)			4.0		ns
Rise Time	tr	See specified Test Circuit.		3.3		ns
Turn-OFF Delay Time	td(off)			12		ns
Fall Time	tf			5.4		ns
Total Gate Charge	Qg	VDS=-15V, VGS=-10V, ID=-1.6A		2.2		nC
Gate-to-Source Charge	Qgs			0.36		nC
Gate-to-Drain "Miller" Charge	Qgd			0.49		nC
Diode Forward Voltage	VSD	IS=-1.6A, VGS=0V		-0.9	-1.5	V

## Switching Time Test Circuit







Note on usage : Since the CPH3360 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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