



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_{DS}		-30	V
Gate-to-Source Voltage	V_{GS}		± 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 ($900\text{mm}^2 \times 0.8\text{mm}$)	0.9	W
Channel Temperature	T_{ch}		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

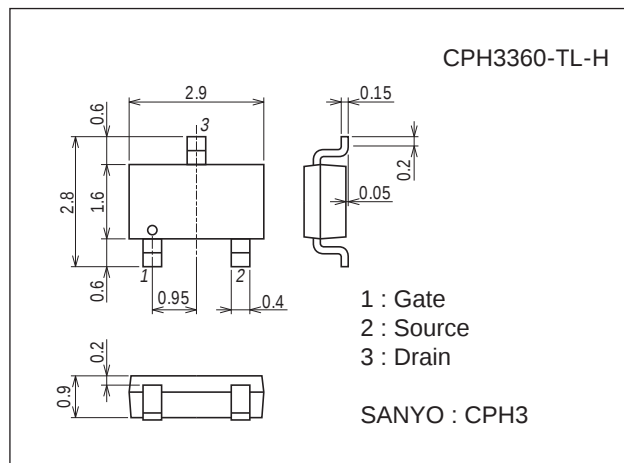
This product is designed to "ESD immunity < 200V*", so please take care when handling.

* Machine Model

Package Dimensions

unit : mm (typ)

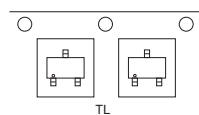
7015A-004



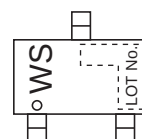
Product & Package Information

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

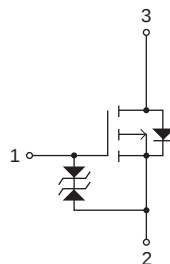
Packing Type: TL



Marking



Electrical Connection

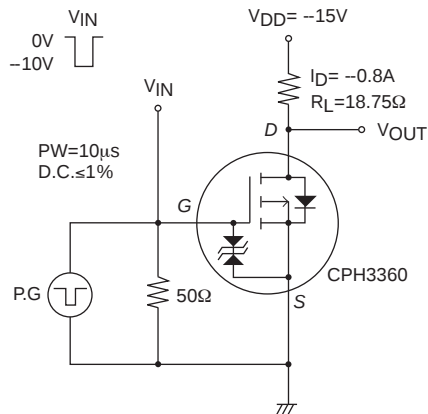


CPH3360

Electrical Characteristics at Ta=25°C

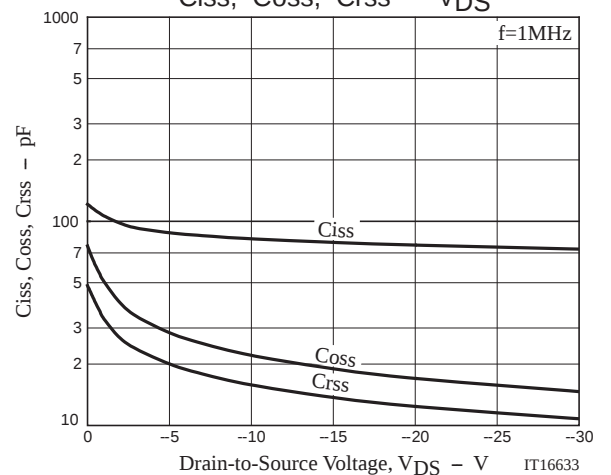
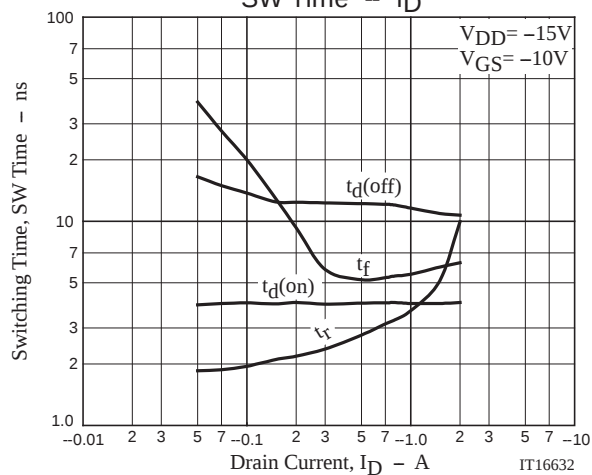
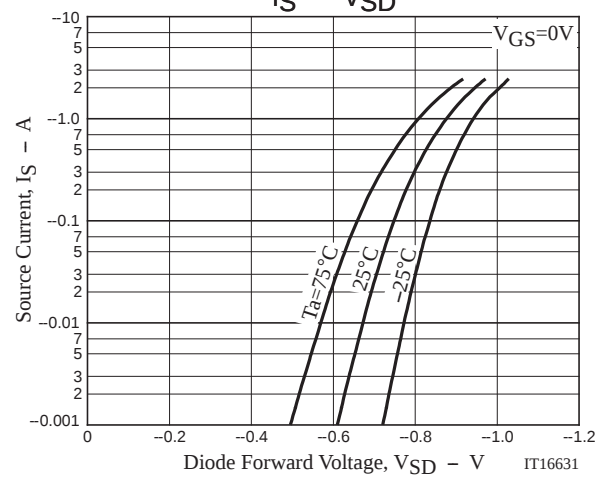
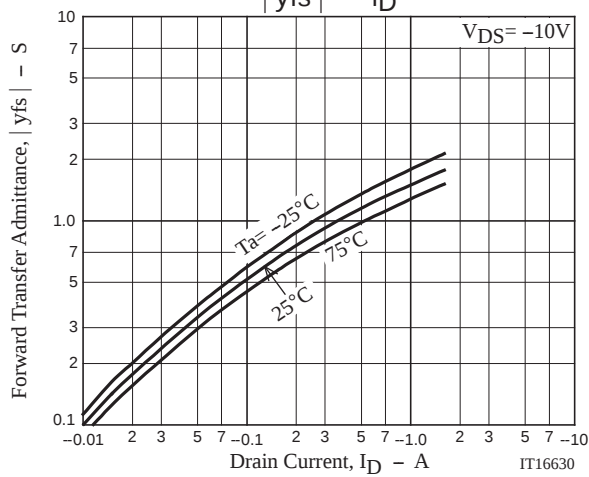
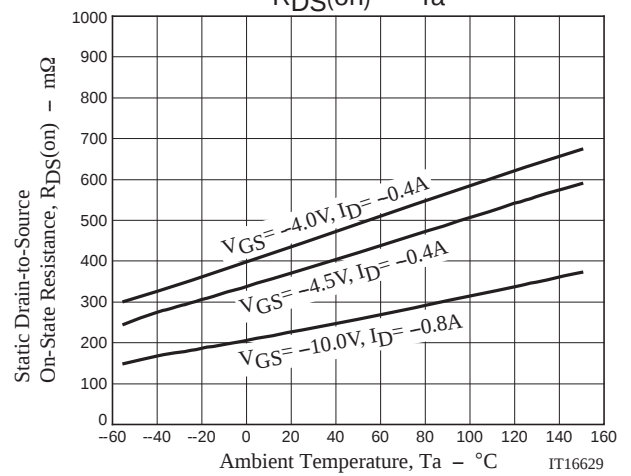
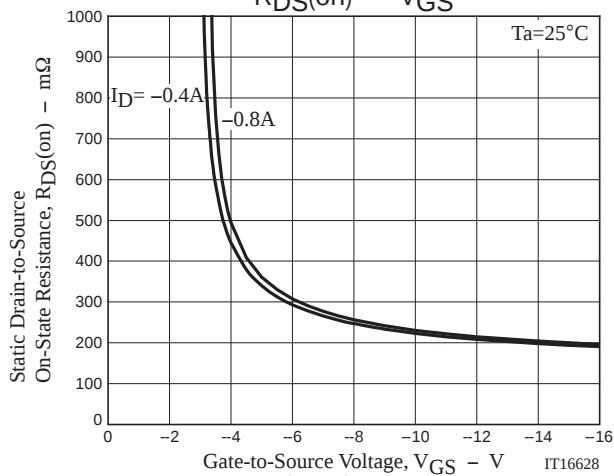
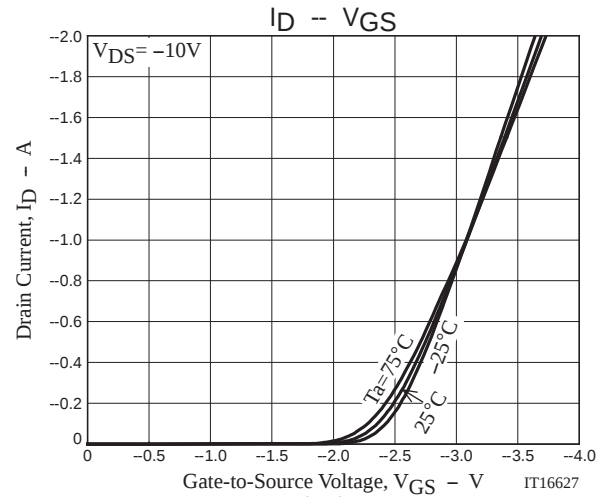
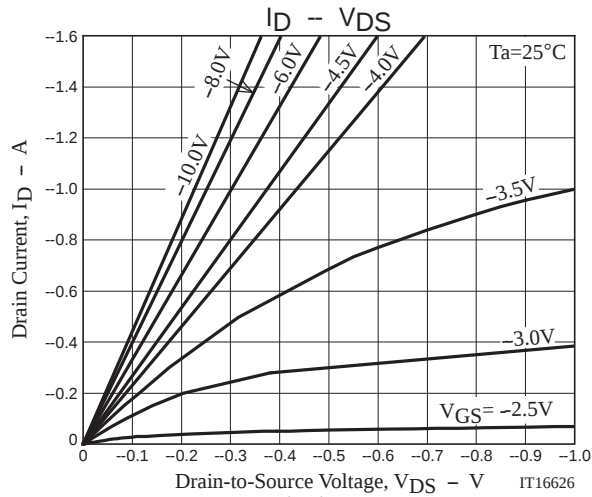
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA, V_{GS} = 0V$	-30			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -30V, V_{GS} = 0V$			-1	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 16V, V_{DS} = 0V$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = -10V, I_D = -1mA$	-1.2		-2.6	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = -10V, I_D = -0.8A$		1.3		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D = -0.8A, V_{GS} = -10V$		233	303	m Ω
	$R_{DS(on)2}$	$I_D = -0.4A, V_{GS} = -4.5V$		380	532	m Ω
	$R_{DS(on)3}$	$I_D = -0.4A, V_{GS} = -4V$		441	617	m Ω
Input Capacitance	C_{iss}	$V_{DS} = -10V, f = 1MHz$		82		pF
Output Capacitance	C_{oss}			22		pF
Reverse Transfer Capacitance	C_{rss}			16		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		4.0		ns
Rise Time	t_r			3.3		ns
Turn-OFF Delay Time	$t_{d(off)}$			12		ns
Fall Time	t_f			5.4		ns
Total Gate Charge	Q_g	$V_{DS} = -15V, V_{GS} = -10V, I_D = -1.6A$		2.2		nC
Gate-to-Source Charge	Q_{gs}			0.36		nC
Gate-to-Drain "Miller" Charge	Q_{gd}			0.49		nC
Diode Forward Voltage	V_{SD}	$I_S = -1.6A, V_{GS} = 0V$		-0.9	-1.5	V

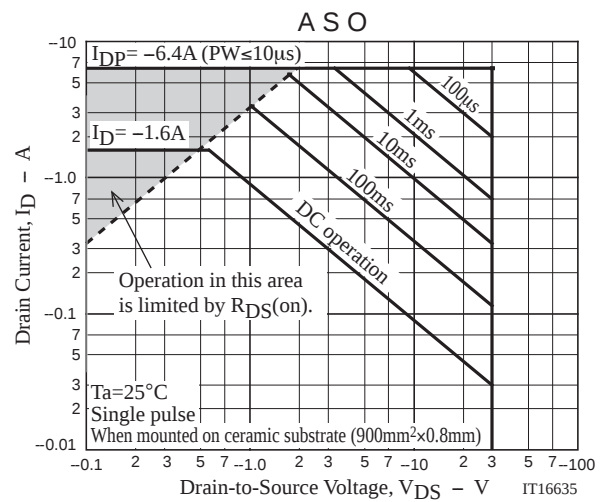
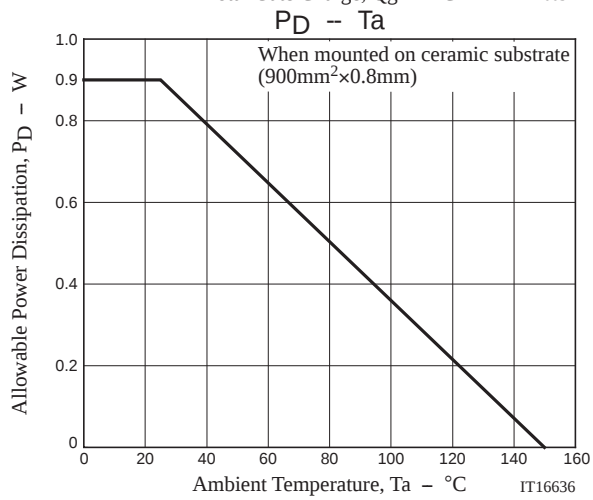
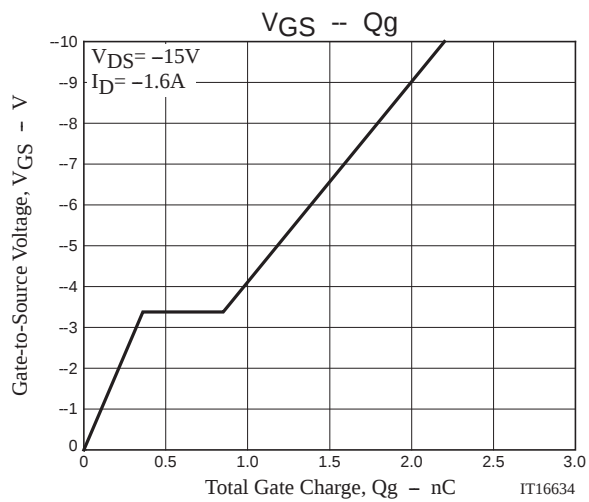
Switching Time Test Circuit



Ordering Information

Device	Package	Shipping	memo
CPH3360-TL-H	CPH3	3,000pcs./reel	Pb Free and Halogen Free





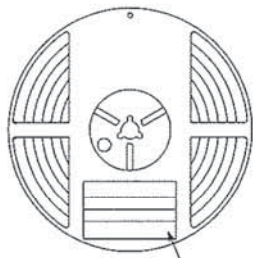
Embossed Taping Specification

CPH3360-TL-H

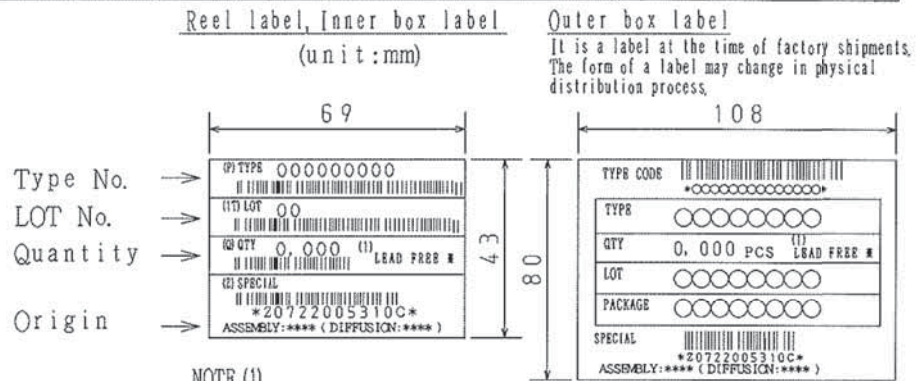
1. Packing Format

Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
CPH3	CPH3	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Packing method

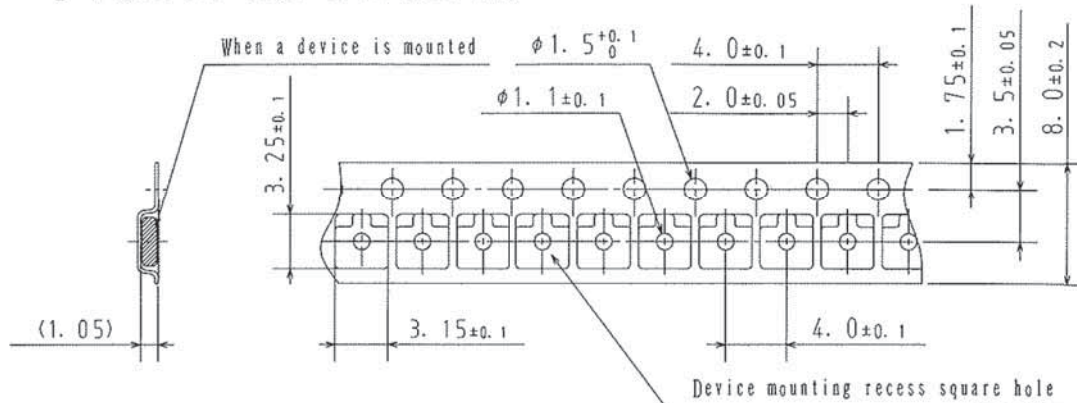


Reel label

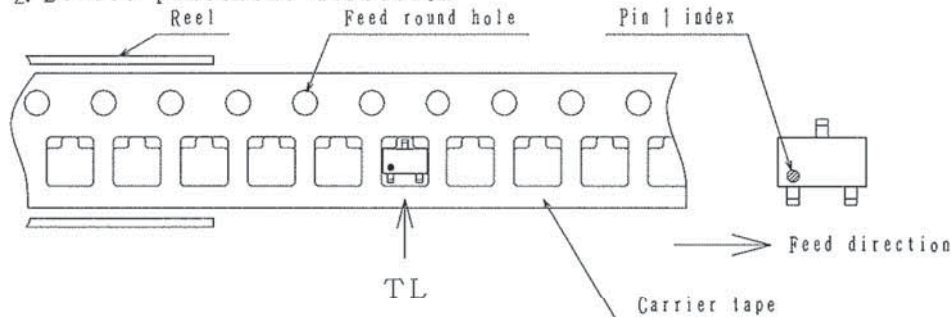


2. Taping configuration

2-1. Carrier tape size (unit:mm)

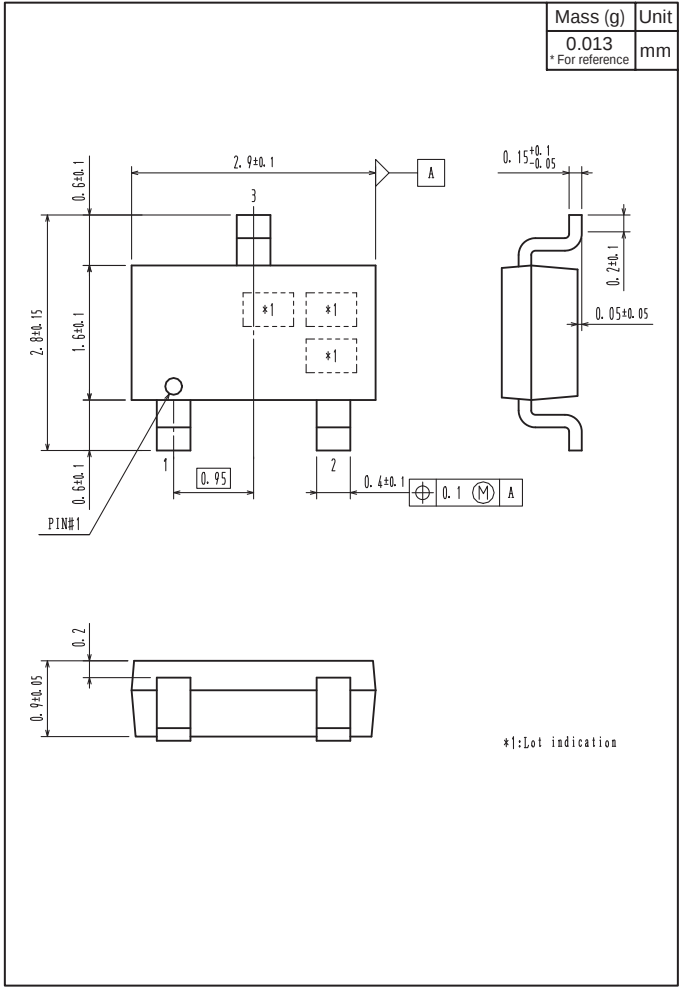


2-2. Device placement direction

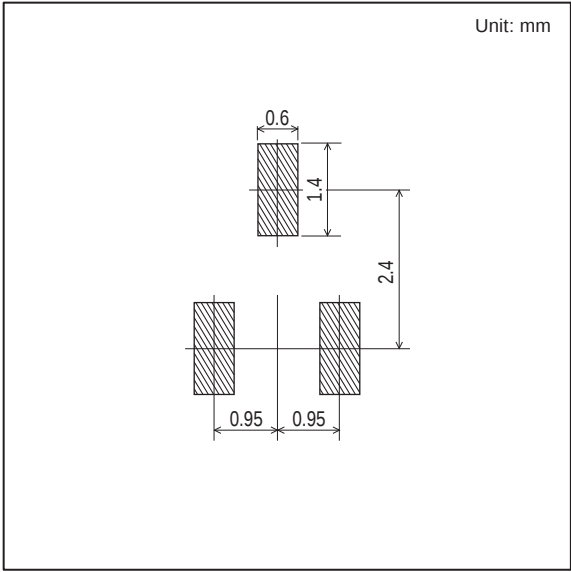


Those with one electrode terminal on the feed hole side.....TL

Outline Drawing
CPH3360-TL-H



Land Pattern Example



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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