



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

CPH3350 — P-Channel Silicon MOSFET General-Purpose Switching Device Applications

Features

- Ultrahigh-speed switching
- 1.8V drive
- Halogen free compliance
- Protection diode in

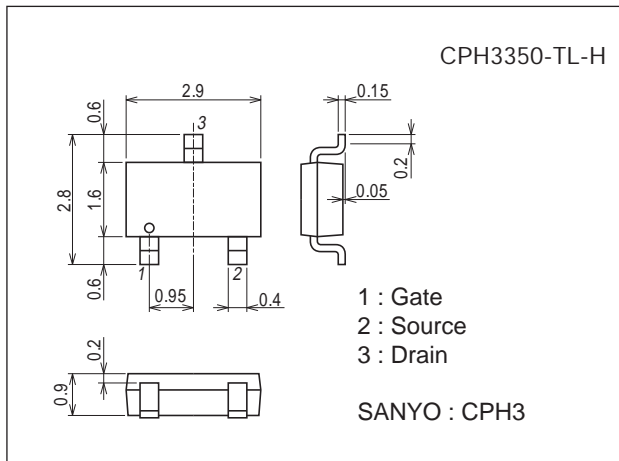
Specifications

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		-3	A
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycles≤1%	-12	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

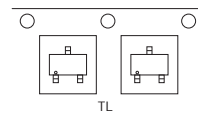
unit : mm (typ)
7015A-004



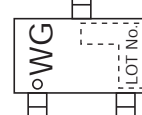
Product & Package Information

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

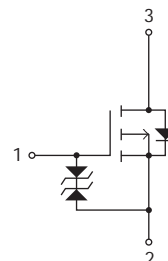
Packing Type: TL



Marking



Electrical Connection

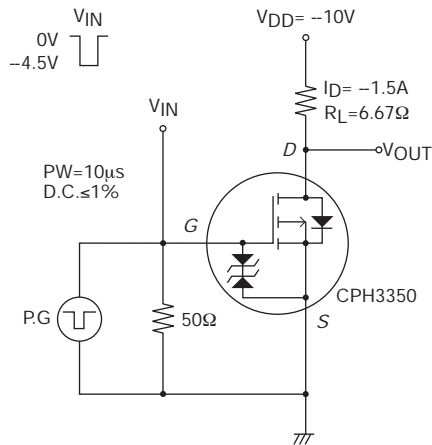


CPH3350

Electrical Characteristics at Ta=25°C

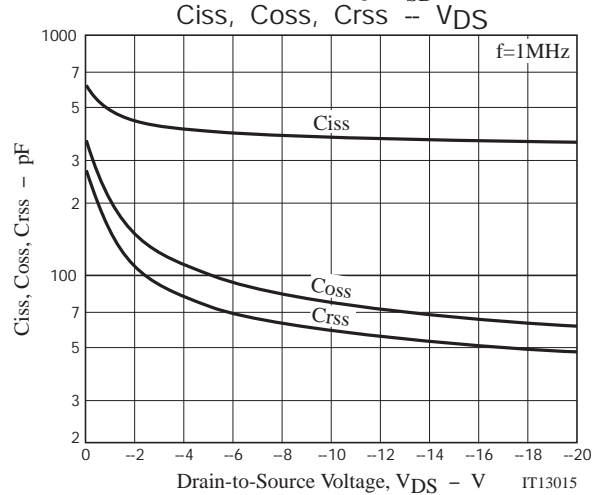
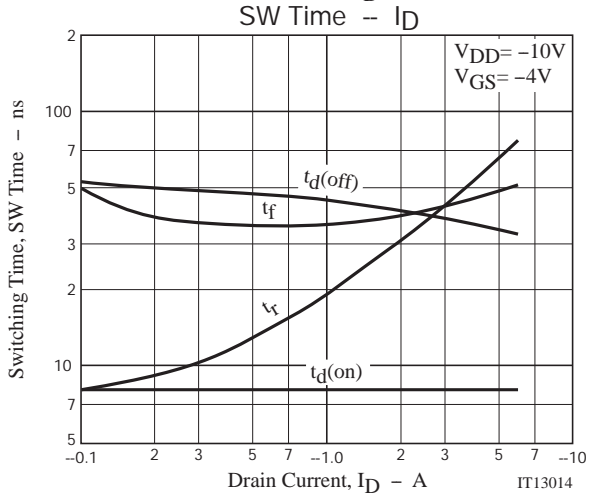
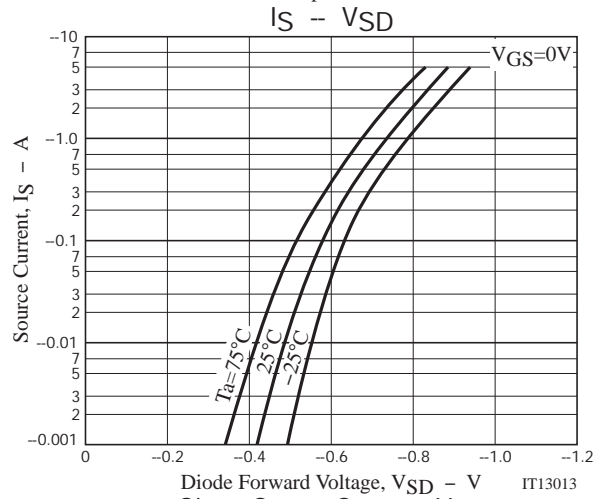
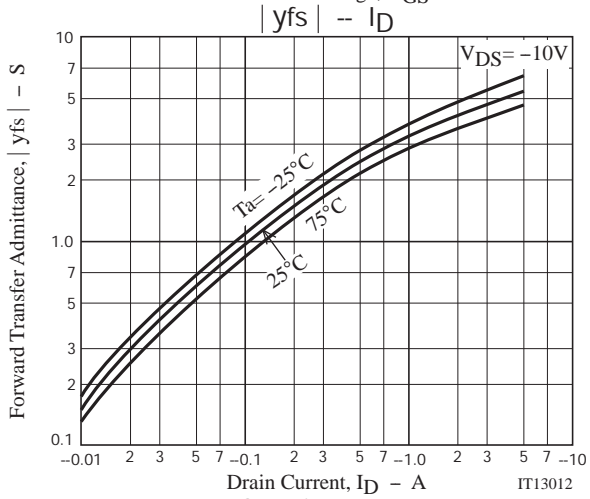
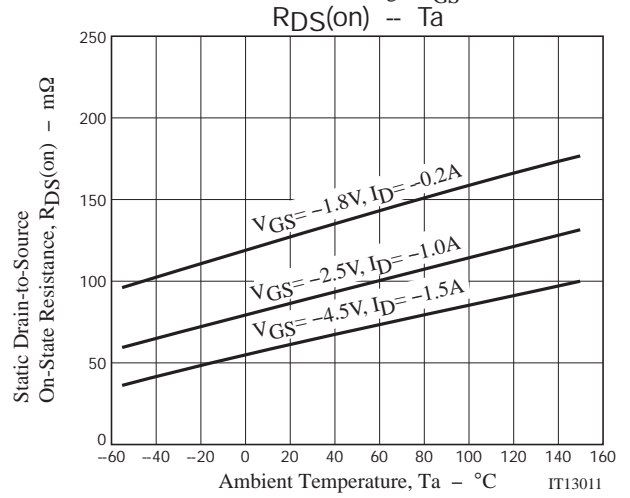
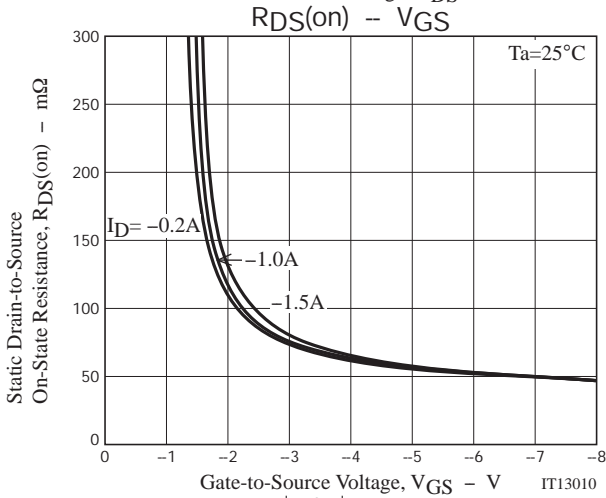
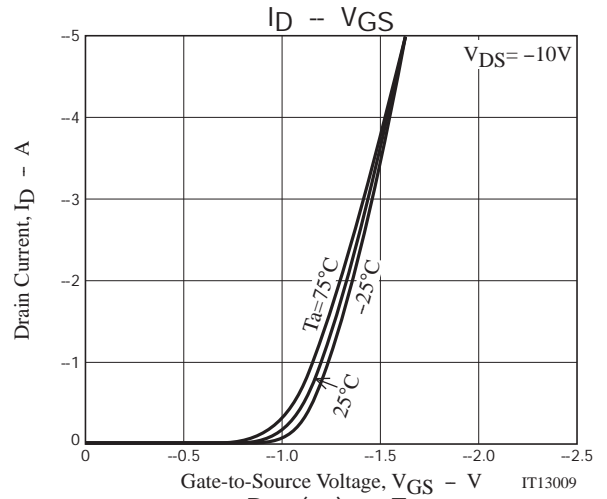
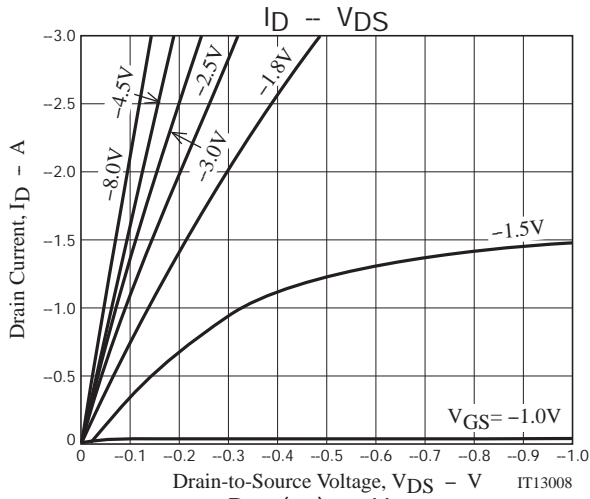
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	V(BR)DSS	I _D =-1mA, V _{GS} =0V	-20			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =-20V, V _{GS} =0V			-1	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±8V, V _{DS} =0V			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{DS} =-10V, I _D =-1mA	-0.4		-1.3	V
Forward Transfer Admittance	y _{fs}	V _{DS} =-10V, I _D =-1.5A		4.3		S
Static Drain-to-Source On-State Resistance	R _{DS(on)1}	I _D =-1.5A, V _{GS} =-4.5V		64	83	mΩ
	R _{DS(on)2}	I _D =-1A, V _{GS} =-2.5V		89	124	mΩ
	R _{DS(on)3}	I _D =-0.2A, V _{GS} =-1.8V		131	196	mΩ
Input Capacitance	C _{iss}			375		pF
Output Capacitance	C _{oss}	V _{DS} =-10V, f=1MHz		77		pF
Reverse Transfer Capacitance	C _{rss}			58		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit.		8.1		ns
Rise Time	t _r			26		ns
Turn-OFF Delay Time	t _{d(off)}			42		ns
Fall Time	t _f			37		ns
Total Gate Charge	Q _g				4.6	
Gate-to-Source Charge	Q _{gs}	V _{DS} =-10V, V _{GS} =-4.5V, I _D =-3A		0.8		nC
Gate-to-Drain "Miller" Charge	Q _{gd}			1.3		nC
Diode Forward Voltage	V _{SD}		I _S =-3A, V _{GS} =0V		-0.83	-1.2

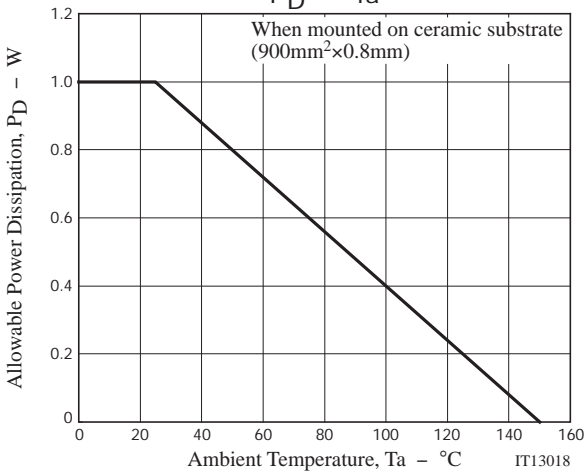
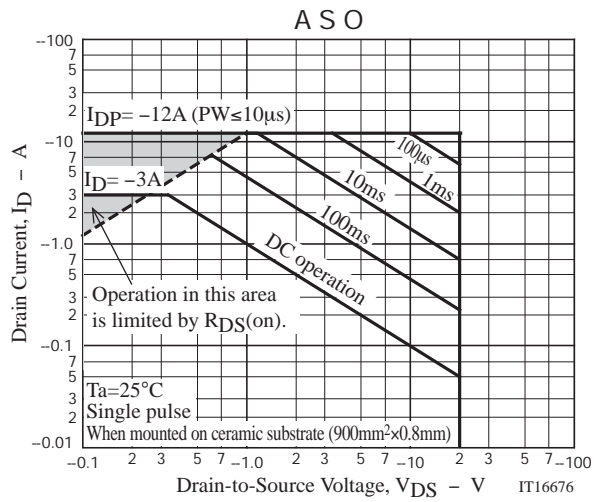
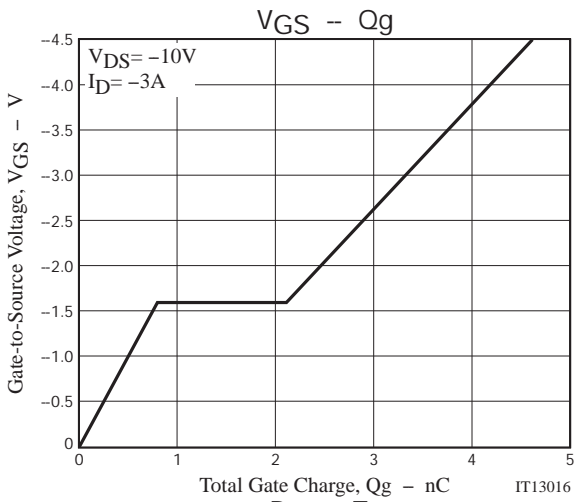
Switching Time Test Circuit



Ordering Information

Device	Package	Shipping	memo
CPH3350-TL-H	CPH3	3,000pcs./reel	Pb Free and Halogen Free





CPH3350

Embossed Taping Specification

CPH3350-TL-H

1. Packing Format

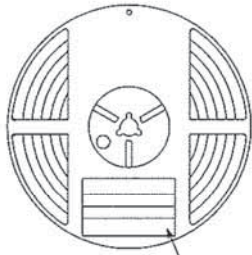
Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
CPH3	CPH3	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Reel label, Inner box label
(unit:mm)

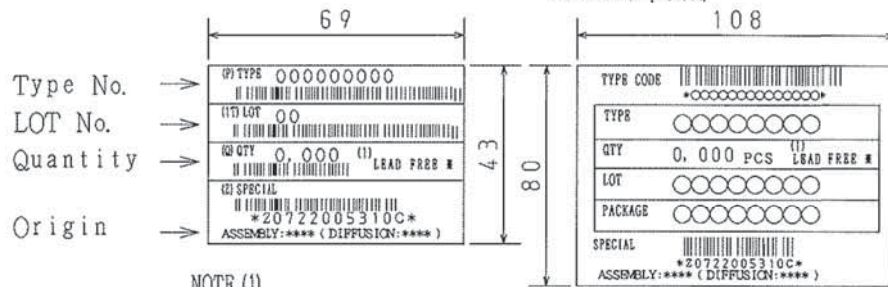
Outer box label

It is a label at the time of factory shipments.
The form of a label may change in physical distribution process.

Packing method



Reel label



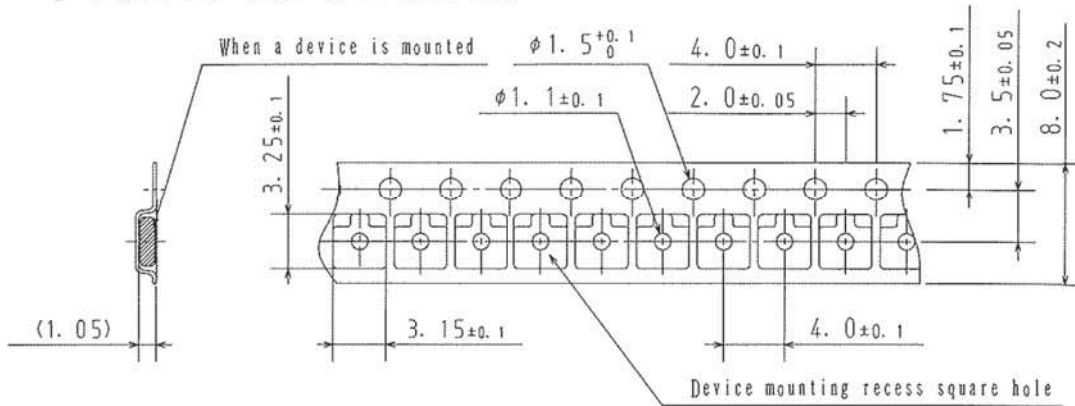
NOTE (1)

The LEAD FREE # description shows that the surface treatment of the terminal is lead free.

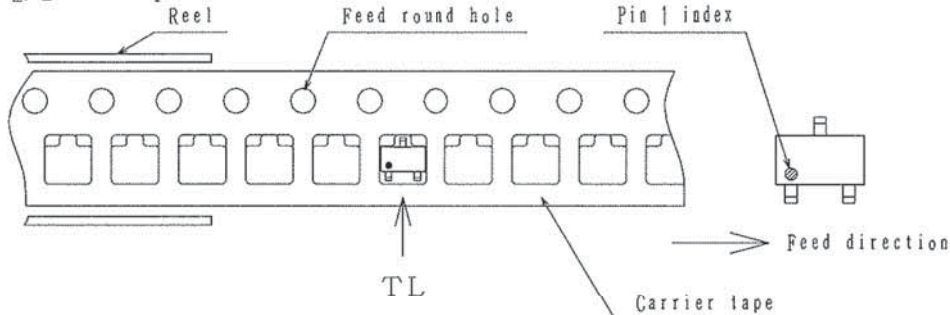
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



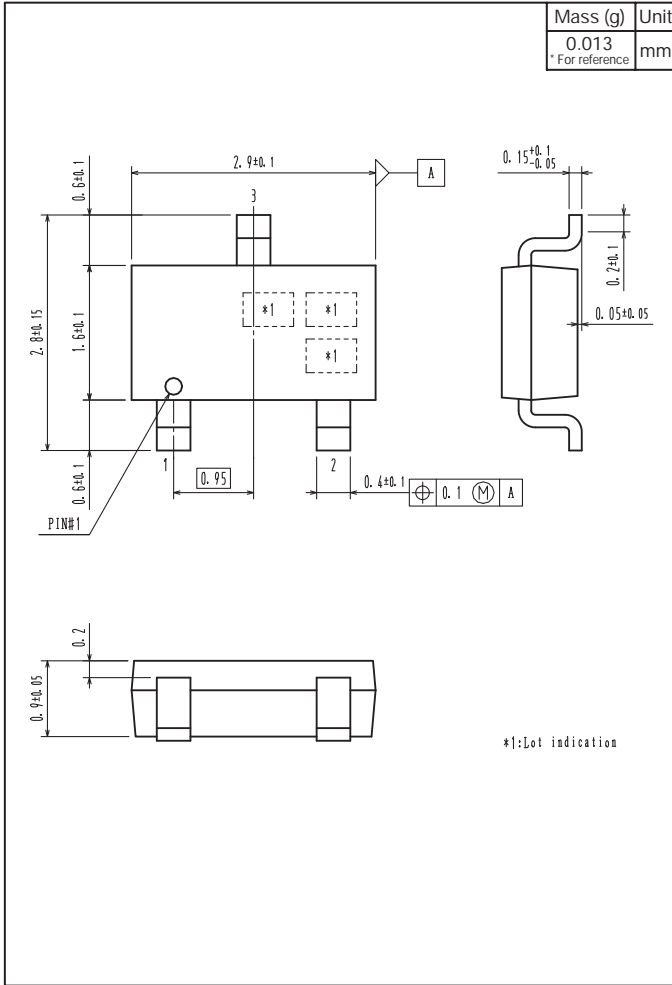
2-2. Device placement direction



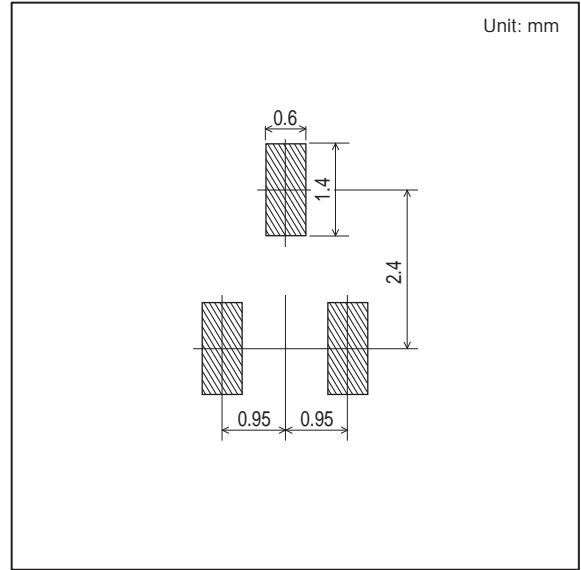
Those with one electrode terminal on the feed hole side.....TL

CPH3350

Outline Drawing CPH3350-TL-E



Land Pattern Example



Note on usage : Since the CPH3350 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А