



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

P-Channel Silicon MOSFET

CPH3356 — General-Purpose Switching Device Applications

Features

- 1.8V drive
- Halogen free compliance
- Protection diode in

Specifications

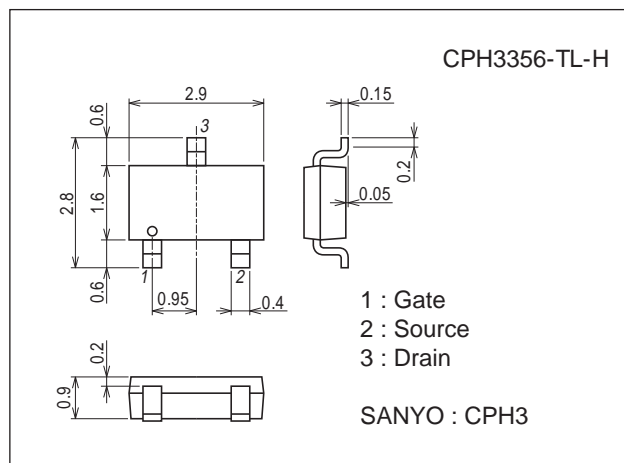
Absolute Maximum Ratings at Ta=25°C

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		-2.5	A
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	-10	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)

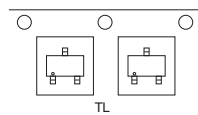
7015A-004



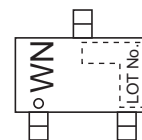
Product & Package Information

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

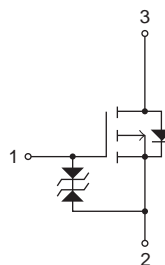
Packing Type: TL



Marking



Electrical Connection

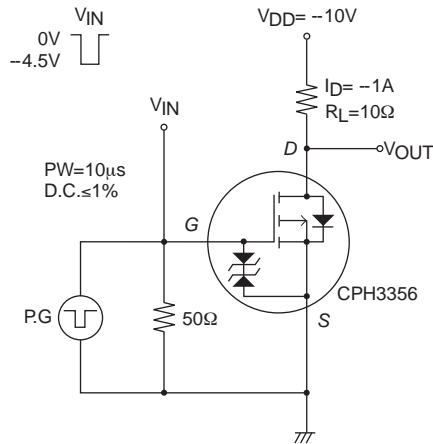


CPH3356

Electrical Characteristics at Ta=25°C

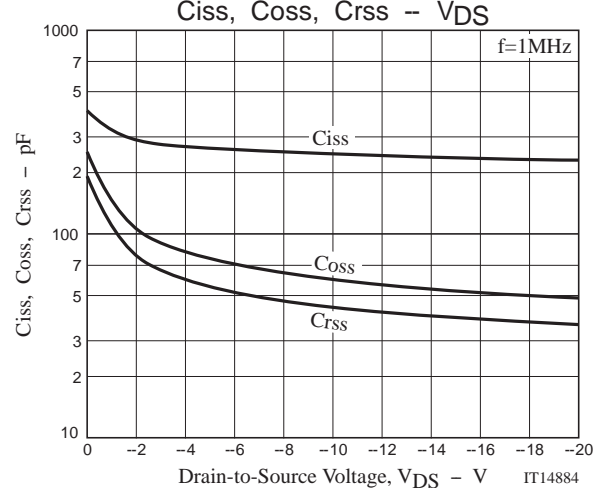
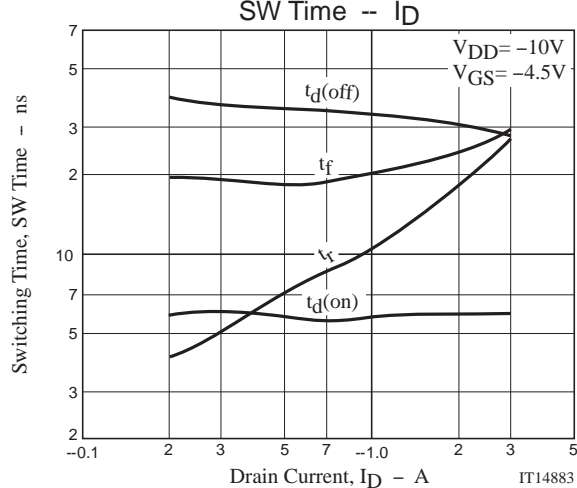
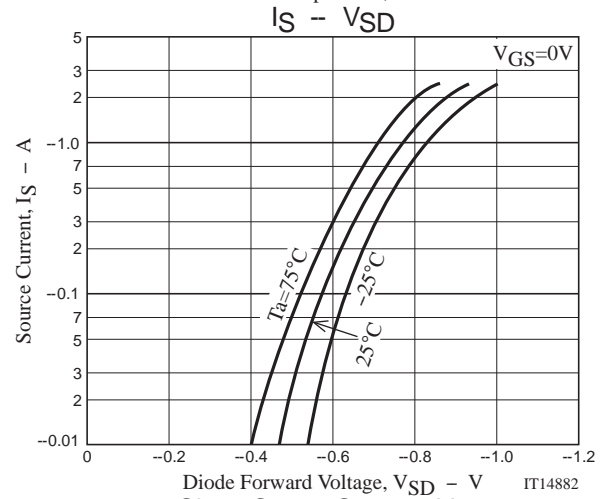
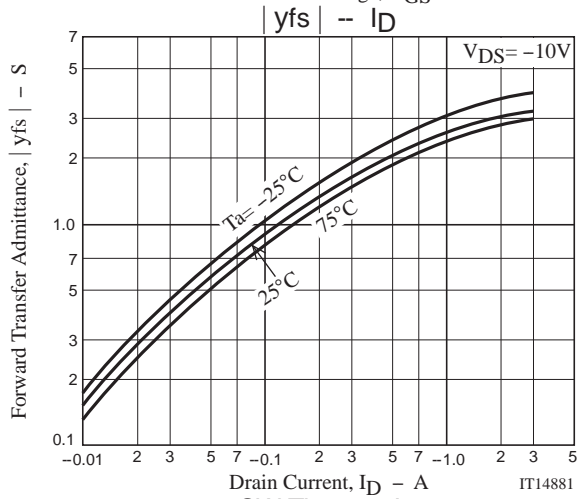
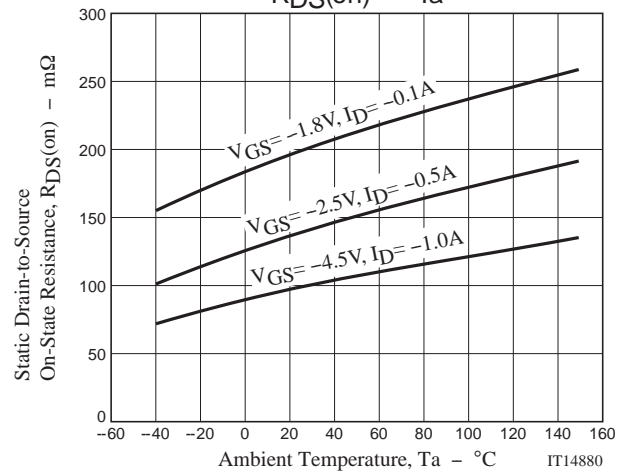
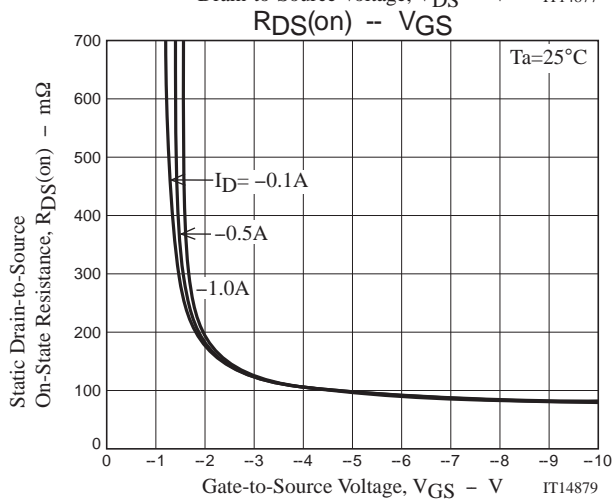
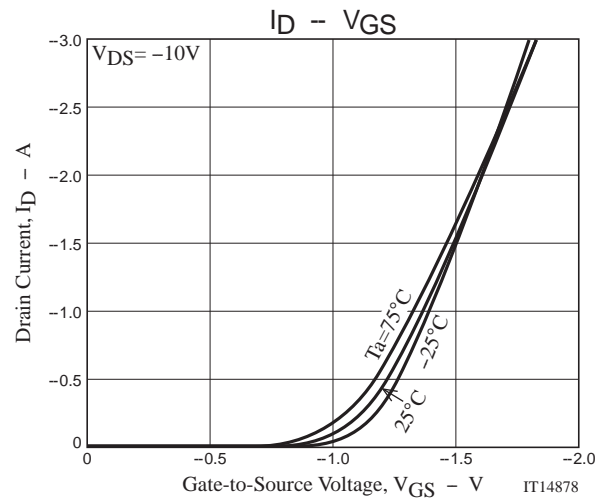
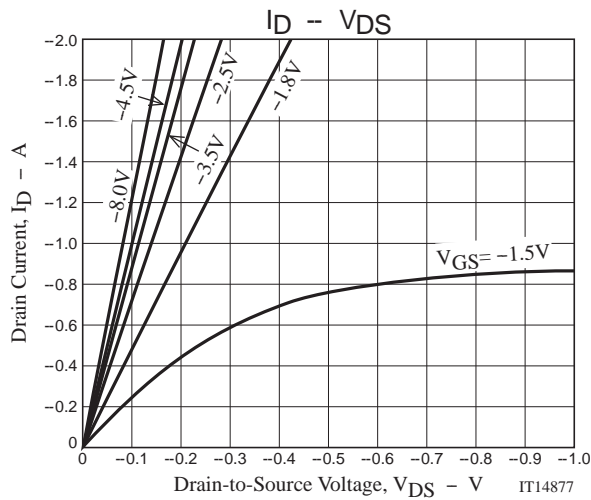
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA, V_{GS} = 0V$	-20			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -20V, V_{GS} = 0V$			-1	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 8V, V_{DS} = 0V$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = -10V, I_D = -1mA$	-0.4		-1.4	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = -10V, I_D = -1A$		2.7		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D = -1A, V_{GS} = -4.5V$		105	137	m Ω
	$R_{DS(on)2}$	$I_D = -0.5A, V_{GS} = -2.5V$		145	203	m Ω
	$R_{DS(on)3}$	$I_D = -0.1A, V_{GS} = -1.8V$		215	323	m Ω
Input Capacitance	C_{iss}	$V_{DS} = -10V, f = 1MHz$		250		pF
Output Capacitance	C_{oss}			60		pF
Reverse Transfer Capacitance	C_{rss}			45		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit.		5.7		ns
Rise Time	t_r			11		ns
Turn-OFF Delay Time	$t_d(off)$			34		ns
Fall Time	t_f			20		ns
Total Gate Charge	Q_g	$V_{DS} = -10V, V_{GS} = -4.5V, I_D = -2.5A$		3.3		nC
Gate-to-Source Charge	Q_{gs}			0.65		nC
Gate-to-Drain "Miller" Charge	Q_{gd}			0.72		nC
Diode Forward Voltage	V_{SD}	$I_S = -2.5A, V_{GS} = 0V$		-0.87	-1.5	V

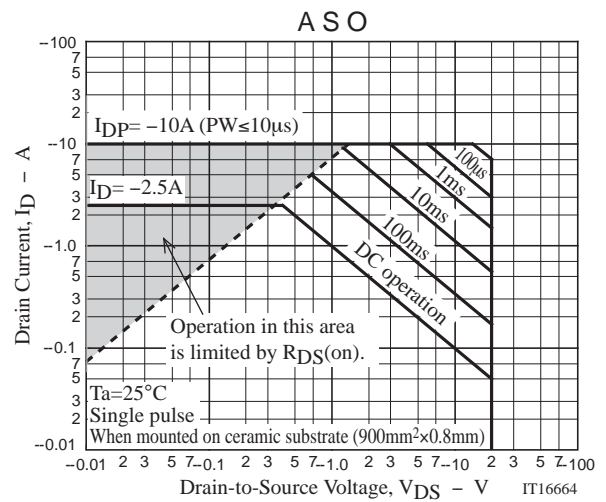
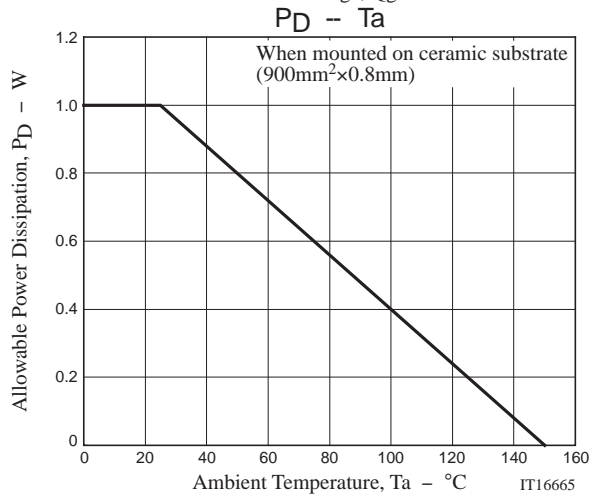
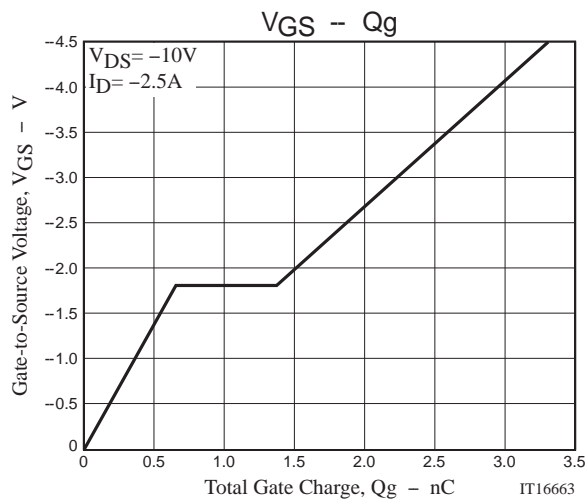
Switching Time Test Circuit



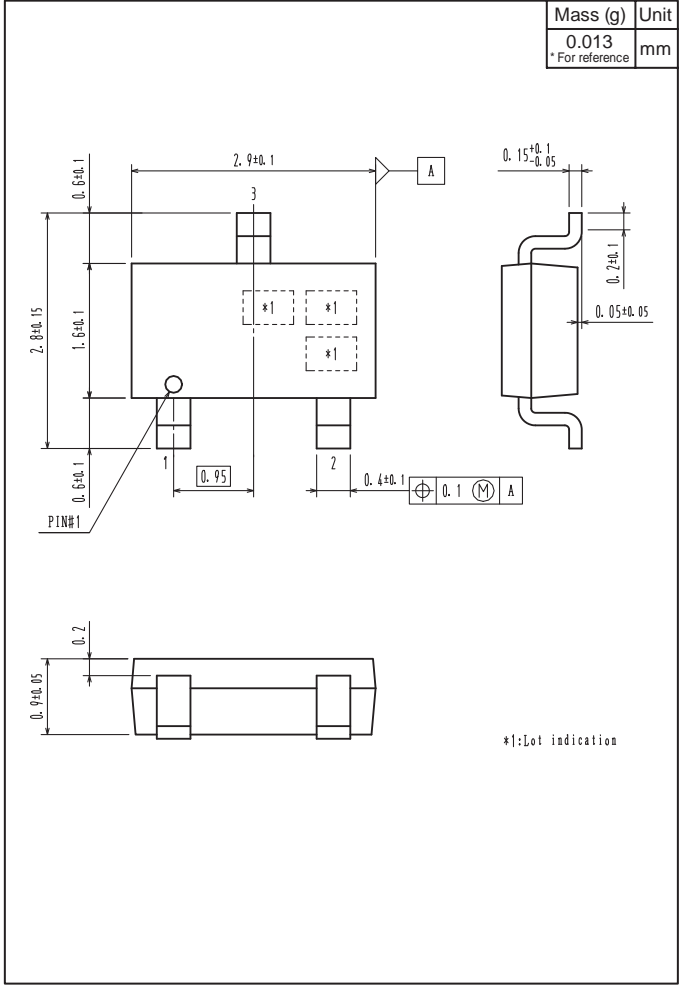
Ordering Information

Device	Package	Shipping	memo
CPH3356-TL-H	CPH3	3,000pcs./reel	Pb Free and Halogen Free

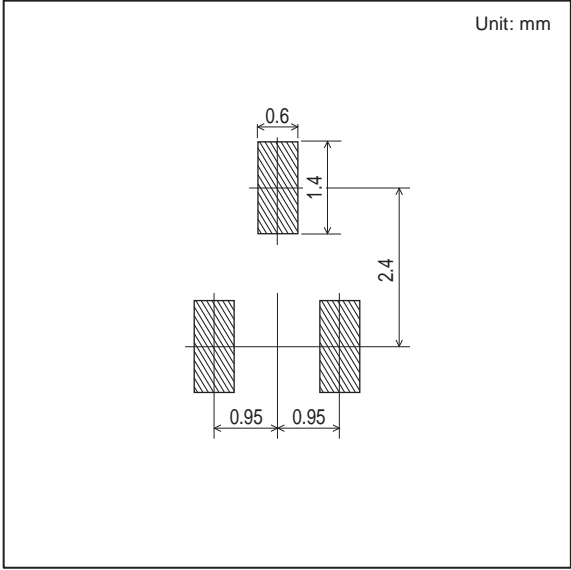




Outline Drawing
CPH3356-TL-H



Land Pattern Example



Note on usage : Since the CPH3356 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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