CPH6341

P-Channel Power MOSFET -30V, -5A, 59mΩ, Single CPH6



http://onsemi.com

Features

- · Low ON-resistance
- · High-speed switching
- 4V drive
- · Protection diode in

Specifications

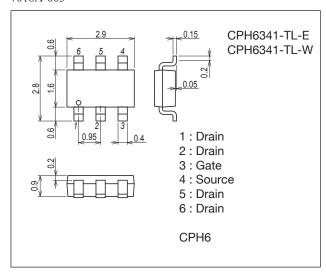
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		-30	V
Gate-to-Source Voltage	VGSS		±20	V
Drain Current (DC)	ID		-5	А
Drain Current (Pulse)	IDP	PW≤10μs, duty cycle≤1%	-20	Α
Allowable Power Dissipation	PD	When mounted on ceramic substrate (900mm ² ×0.8mm)	1.6	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

unit : mm (typ) 7018A-003



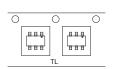
Product & Package Information

• Package : CPH6

• JEITA, JEDEC : SC-74, SOT-26, SOT-457

• Minimum Packing Quantity : 3,000 pcs./reel

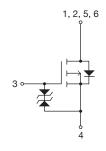
Packing Type: TL



Marking



Electrical Connection



ORDERING INFORMATION

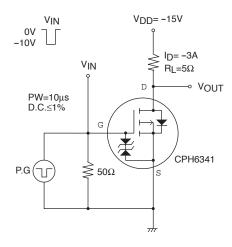
See detailed ordering and shipping information on page 2 of this data sheet.

CPH6341

Electrical Characteristics at Ta=25°C

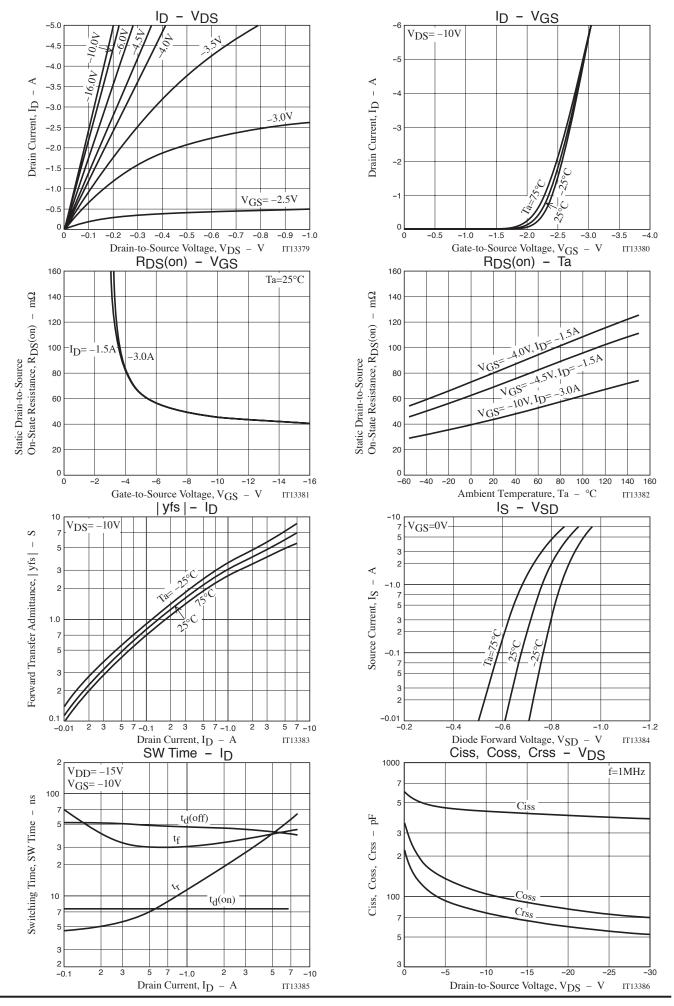
Parameter	Symbol	Conditions	Ratings			Unit
Parameter		Conditions	min	typ	max	Onit
Drain-to-Source Breakdown Voltage	V(BR)DSS	ID=-1mA, VGS=0V	-30			V
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =-30V, V _{GS} =0V			-1	μΑ
Gate-to-Source Leakage Current	IGSS	V _{GS} =±16V, V _{DS} =0V			±10	μΑ
Cutoff Voltage	V _{GS} (off)	V _{DS} =-10V, I _D =-1mA -1.2			-2.6	V
Forward Transfer Admittance	yfs	V _{DS} =-10V, I _D =-3A	2.8	4.8		S
Static Drain-to-Source On-State Resistance	RDS(on)1	ID=-3A, VGS=-10V		45	59	mΩ
	R _{DS} (on)2	I _D =-1.5A, V _G S=-4.5V		71	100	mΩ
	R _{DS} (on)3	I _D =-1.5 A, V _G S=-4V		82	115	mΩ
Input Capacitance	Ciss			430		pF
Output Capacitance	Coss	V _{DS} =-10V, f=1MHz		105		рF
Reverse Transfer Capacitance	Crss			75		рF
Turn-ON Delay Time	t _d (on)			7.5		ns
Rise Time	t _r	Considered Took Cinevity		26		ns
Turn-OFF Delay Time	t _d (off)	See specified Test Circuit.		45		ns
Fall Time	tf			35		ns
Total Gate Charge	Qg			10		nC
Gate-to-Source Charge	Qgs	V _{DS} =-15V, V _{GS} =-10V, I _D =-5A		2.0		nC
Gate-to-Drain "Miller" Charge	Qgd]		2.5		nC
Diode Forward Voltage	V _{SD}	I _S =-5A, V _{GS} =0V		-0.87	-1.2	V

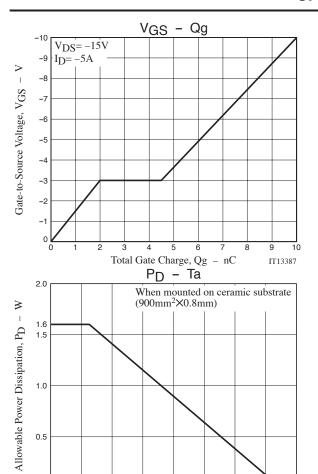
Switching Time Test Circuit



Ordering Information

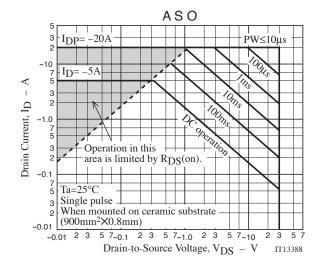
Device	Package	Shipping	memo	
CPH6341-TL-E	CDUG	2.000000 /rool	Pb-Free	
CPH6341-TL-W	CPH6	3,000pcs./reel	Pb-Free and Halogen Free	





Ambient Temperature, Ta - °C

IT13389

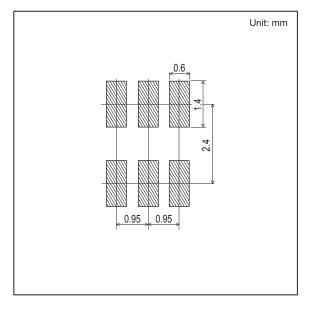


Outline Drawing

CPH6341-TL-E, CPH6341-TL-W

Mass (g) Unit 0.015 For reference mm 0. 15^{+0. 1}_{-0. 05} 2. 9±0. 1 0.6±0.1 A 0. 2±0. 1 [*1][*1] 0. 05±0.05 2, 8±0, 15 6±0.1 [*1] - \$ 0. 95 0. 4±0. 1 M A PIN#1 0.05 \$ *1:Lot indication

Land Pattern Example



Note on usage: Since the CPH6341 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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