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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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CPH3462



http://onsemi.com

Power MOSFET 100V, $785m\Omega$, 1A, Single N-Channel

Features

- On-resistance $R_{DS}(on)1=590m\Omega$ (typ)
- 4V drive
- Halogen free compliance

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Value	Unit
Drain to Source Voltage	V _{DSS}		100	V
Gate to Source Voltage	V _{GSS}		±20	V
Drain Current (DC)	ID		1	Α
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	4	Α
Power Dissipation	PD	When mounted on ceramic substrate (900mm ² ×0.8mm)	1.0	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

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

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

Thermal Resistance Ratings

Parameter	Symbol	Value	Unit
Junction to Ambient When mounted on ceramic substrate (900mm ² ×0.8mm)	$R_{ heta JA}$	125	°C/W

Electrical Characteristics at Ta = 25 °C

Danamatan	Ol			Value		112
Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source Breakdown Voltage	V(BR)DSS	I _D =1mA, V _{GS} =0V	100			٧
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =100V, V _{GS} =0V			1	μА
Gate to Source Leakage Current	IGSS	V _{GS} =±16V, V _{DS} =0V			±10	μА
Gate Threshold Voltage	V _{GS} (th)	V _{DS} =10V, I _D =1mA	1.2		2.6	٧
Forward Transconductance	gFS .	V _{DS} =10V, I _D =0.5A		2.5		S
Static Drain to Source On-State Resistance	R _{DS} (on)1	I _D =1A, V _{GS} =10V		590	785	mΩ
Static Drain to Source On-State Resistance	R _{DS} (on)2	I _D =0.5A, V _{GS} =4V		650	930	mΩ
Input Capacitance	Ciss	V _{DS} =20V, f=1MHz		155		pF
Output Capacitance	Coss			11.9		pF
Reverse Transfer Capacitance	Crss			5.8		pF

Continued on next page.

ORDERING INFORMATION

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

^{*} Machine Model

CPH3462

Continued from preceding page.

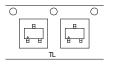
Devemeter	Symbol	Conditions	Value			Linia
Parameter			min	Тур	max	Unit
Turn-ON Delay Time	t _d (on)	See specified Test Circuit		4.0		ns
Rise Time	t _r			2.8		ns
Turn-OFF Delay Time	t _d (off)			17		ns
Fall Time	tf			11		ns
Total Gate Charge	Qg	V _{DS} =50V, V _{GS} =10V, I _D =1A		3.4		nC
Gate to Source Charge	Qgs			0.47		nC
Gate to Drain "Miller" Charge	Qgd			0.72		nC
Forward Diode Voltage	V _{SD}	I _S =1A, V _{GS} =0V		0.82	1.2	٧

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

Ordering & Package Information

Device	Package	Shipping	note
CPH3462-TL-W	CPH3, SC-59 SOT-23, TO-236	3,000 pcs. / reel	Pb-Free and Halogen Free

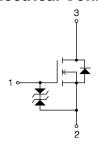
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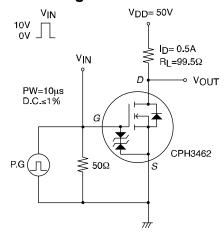
Marking

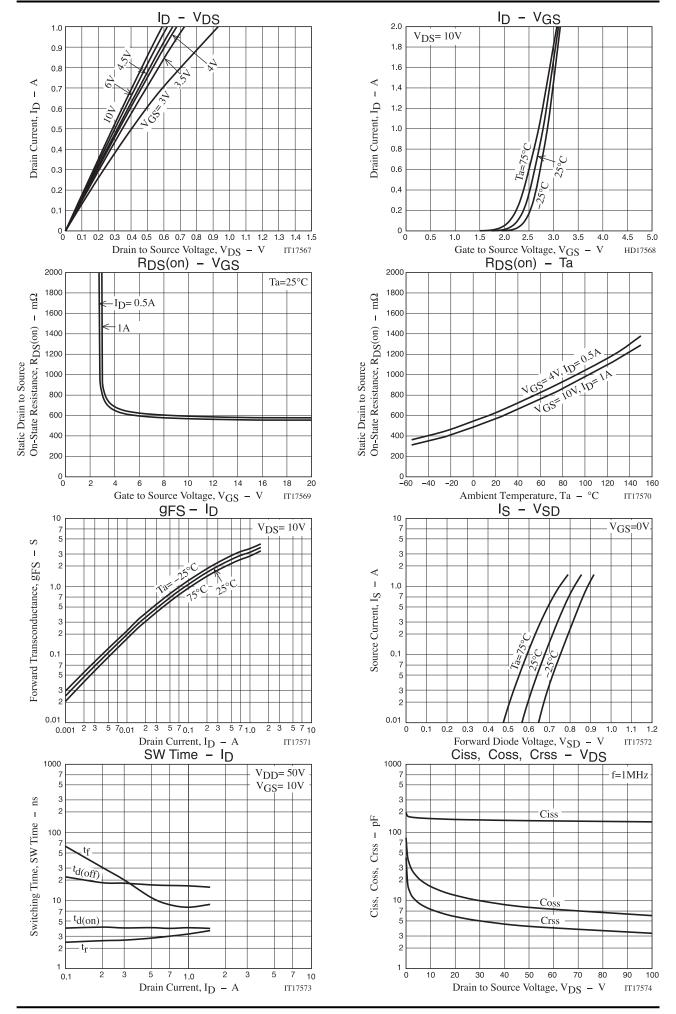


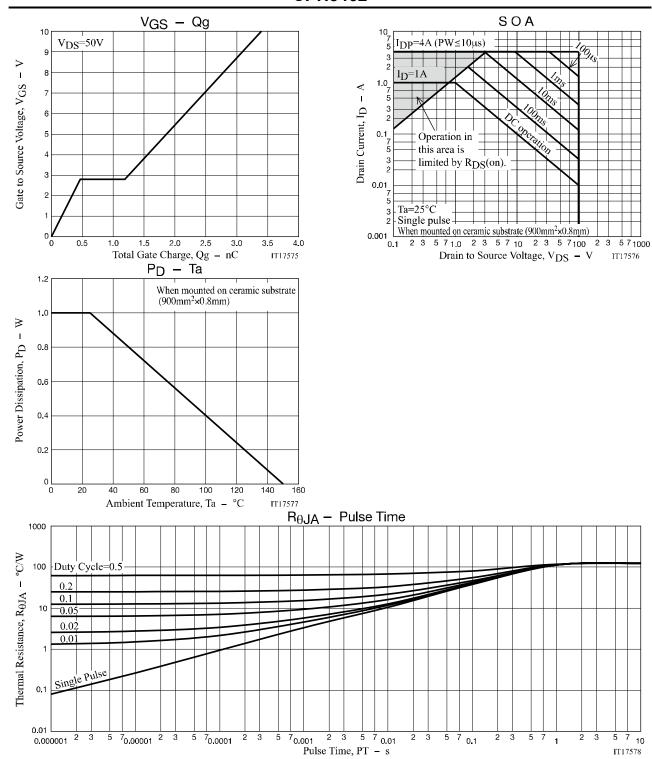
Electrical Connection



Switching Time Test Circuit







Package Dimensions

CPH3462-TL-W

CPH3

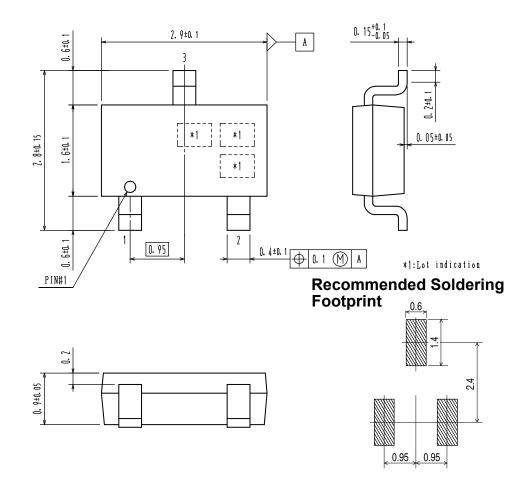
CASE 318BA ISSUE O

unit: mm

1: Gate

2: Source

3: Drain



Note on usage: Since the CPH3462 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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