



The DNA of tech.™

# Product Change Notification

Product Group: OPT/Fri Nov 3, 2023/PCN-OPT-1300-2023-REV-0



## 10 MBd open collector high speed coupler series production site transfer

For further information, please contact your regional Vishay office.

### CONTACT INFORMATION

#### Americas

Vishay Intertechnologies, Inc.  
2585 Junction Avenue  
-  
San Jose United States 5134-1923  
Phone: +1-408-567-8358  
Fax: +1-408-240-5687  
jim.toal@vishay.com

#### Europe

VISHAY Semiconductor GmbH  
Theresienstr. 2  
-  
Heilbronn Germany 74025  
Phone: +49-7131-7498-645  
Fax: +49-7131-67-3144  
boris.lazic@vishay.com

#### Asia

VISHAY Intertechnology Asia Pte. Ltd.  
25 Tampines Street 92  
Keppel Building # 02-00  
Singapore Singapore 528877  
Phone: +65 6780 7879  
Fax: +65 6780 7897  
jason.soon@vishay.com

**Description of Change:** The detector chip currently used on the 10 MBd high-speed optocouplers has been discontinued. To ensure supply and to remain cost competitive, the production of these parts will be transferred to one of our sub-contractors where a different chip set has been qualified. There is no impact on the function of the part.

**Reason for Change:** Transfer to another production site

**Expected Influence on Quality/Reliability/Performance:** No influence on quality, reliability and performance expected. Nevertheless, we request our customers to test the product in their specific application.

**Part Numbers/Series/Families Affected:** Please see materials list on the succeeding page.

**Vishay Brand(S):** Vishay Semiconductors

#### Time Schedule:

Start Shipment Date: Sun Jan 14, 2024

**Sample Availability:** Components with the change implemented could start shipping on or after the start shipment date and will be a function of the availability of the material.

**Product Identification:** By datecode and package outline

**Qualification Data:** This change has been rigorously qualified by company and industry standard

**This PCN is considered approved, without further notification, unless we receive specific customer concerns before Sun Jan 7, 2024 or as specified by contract.**

**Issued By:** Achim Kruck, achim.kruck@vishay.com



The DNA of tech.™

# Product Change Notification



Product Group: OPT/Fri Nov 3, 2023/PCN-OPT-1300-2023-REV-0

6N137	6N137-X006	6N137-X007T	VO0600T	VO0601T
VO0601-X001T	VO0611T	VO0630T	VO0631T	VO0631-X001T
VO0661T	VO2601	VO2601-X006	VO2601-X007T	VO2601-X017T
VO2611	VO2611-X006	VO2611-X007T	VO2611-X016	VO2611-X017T
VO2630	VO2630-X007T	VO2631	VO2631-X006	VO2631-X007T
VO2631-X017T	VO4661	VO4661-X006	VO4661-X007T	VOW137-X001
VOW137-X017T	VOW2611-X001	VOW2611-X017T		

PCN OPT-1300-2023 - 10 MBd open collector high speed coupler series production site transfer

Current vs. New Production Site – Key Parameter Comparison

DIP-8 package, single and dual channel parts

Achim Kruck

2023-10-06



The DNA of tech.™




© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

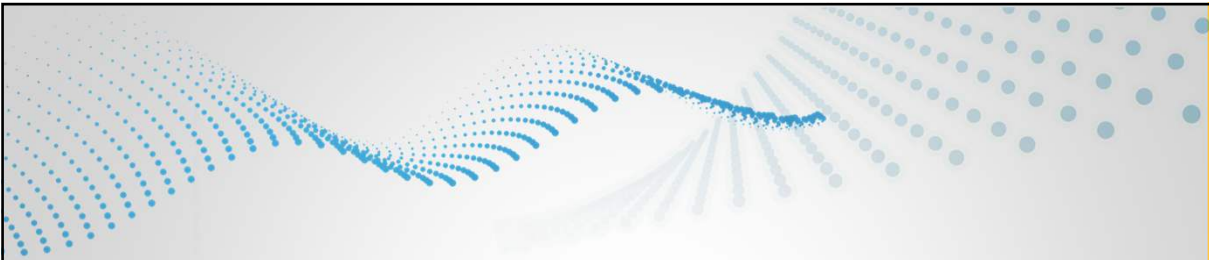
1

Electrical Characteristics

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.



The DNA of tech.™



2

Input

Current

INPUT						
Input forward voltage	$I_F = 10\text{ mA}$	$V_F$	1.1	1.4	1.7	V
Reverse current	$V_R = 5\text{ V}$	$I_R$	-	0.01	10	$\mu\text{A}$
Input capacitance	$f = 1\text{ MHz}, V_F = 0\text{ V}$	$C_I$	-	55	-	pF

New

INPUT						
Input forward voltage	$I_F = 10\text{ mA}$	$V_F$	-	1.38	1.70	V
Input forward voltage temperature coefficient	$I_F = 10\text{ mA}$	$\Delta V_F/\Delta T$	-	-1.5	-	mV/K
Input reverse voltage	$I_R = 10\text{ }\mu\text{A}$	$BV_R$	5	-	-	V
Input threshold current	$V_E = 2\text{ V}, V_O = 0.6\text{ V}, V_{CC} = 5.5\text{ V}, I_{OL}(\text{sinking}) = 13\text{ mA}$	$I_{TH}$	-	2	5	mA
Input capacitance	$f = 1\text{ MHz}, V_F = 0\text{ V}$	$C_I$	-	34	-	pF

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Output

Current

OUTPUT						
High level supply current (single channel)	$V_E = 0.5\text{ V}, I_F = 0\text{ mA}$	$I_{OCH}$	-	4.1	7	mA
	$V_E = V_{CC}, I_F = 0\text{ mA}$	$I_{OCH}$	-	3.3	6	mA
High level supply current (dual channel)	$I_F = 0\text{ mA}$	$I_{OCH}$	-	6.6	12	mA
Low level supply current (single channel)	$V_E = 0.5\text{ V}, I_F = 10\text{ mA}$	$I_{OCL}$	-	4	7	mA
	$V_E = V_{CC}, I_F = 10\text{ mA}$	$I_{OCL}$	-	3.3	6	mA
Low level supply current (dual channel)	$I_F = 10\text{ mA}$	$I_{OCL}$	-	6.6	12	mA
High level output current	$V_E = 2\text{ V}, V_{CC} = 5.5\text{ V}, I_F = 250\text{ }\mu\text{A}$	$I_{OH}$	-	0.002	1	$\mu\text{A}$
Low level output voltage	$V_F = 2\text{ V}, I_F = 5\text{ mA}, I_{OL}(\text{sinking}) = 13\text{ mA}$	$V_{OL}$	-	0.2	0.6	V
Input threshold current	$V_E = 2\text{ V}, V_{CC} = 5.5\text{ V}, I_{OL}(\text{sinking}) = 13\text{ mA}$	$I_{TH}$	-	2.4	5	mA
High level enable current	$V_E = 2\text{ V}$	$I_{EH}$	-	-0.8	-1.6	mA
Low level enable current	$V_E = 0.5\text{ V}$	$I_{EL}$	-	-0.8	-1.6	mA
High level enable voltage		$V_{EH}$	2	-	-	V
Low level enable voltage		$V_{EL}$	-	-	0.8	V

New

OUTPUT						
Low level supply current	$I_F = 10\text{ mA}, V_{CC} = 5.5\text{ V}, V_E = 0.5\text{ V}$	$I_{OCL}$	-	3.6	5	mA
High level supply current	$I_F = 0\text{ mA}, V_{CC} = 5.5\text{ V}, V_E = 0.5\text{ V}$	$I_{OCH}$	-	3.7	5	mA
Low level enable current	$V_{CC} = 5.5\text{ V}, V_F = 0.5\text{ V}$	$I_{EL}$	-	-0.9	-1.6	mA
High level enable current	$V_{CC} = 0.5\text{ V}, V_F = 2\text{ V}$	$I_{EH}$	-	-0.19	-1.6	mA
Low level enable voltage		$V_{EL}$	-	-	0.8	V
High level enable voltage		$V_{EH}$	2	-	-	V
Low level output voltage	$V_{CC} = 5.5\text{ V}, V_F = 2\text{ V}, I_F = 5\text{ mA}, I_{OL}(\text{sinking}) = 13\text{ mA}$	$V_{OL}$	-	0.20	0.60	V
High level output current	$V_{CC} = 5.5\text{ V}, V_F = 2\text{ V}, V_O = 5.5\text{ V}, I_F = 250\text{ }\mu\text{A}$	$I_{OH}$	-	1	10	$\mu\text{A}$

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

CMTI

Current

COMMON MODE TRANSIENT IMMUNITY (T <sub>amb</sub> = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Common mode transient immunity	V <sub>CM</sub>   = 10 V, V <sub>CC</sub> = 5 V, I <sub>F</sub> = 0 mA, V <sub>O(min)</sub> = 2 V, R <sub>L</sub> = 350 Ω, T <sub>amb</sub> = 25 °C (1)	CM <sub>H</sub>	1000	-	-	V/μs
	V <sub>CM</sub>   = 50 V, V <sub>CC</sub> = 5 V, I <sub>F</sub> = 0 mA, V <sub>O(min)</sub> = 2 V, R <sub>L</sub> = 350 Ω, T <sub>amb</sub> = 25 °C (2)	CM <sub>H</sub>	5000	10 000	-	V/μs
	V <sub>CM</sub>   = 1 kV, V <sub>CC</sub> = 5 V, I <sub>F</sub> = 0 mA, V <sub>O(min)</sub> = 2 V, R <sub>L</sub> = 350 Ω, T <sub>amb</sub> = 25 °C (2)	CM <sub>H</sub>	15 000	25 000	-	V/μs
	V <sub>CM</sub>   = 10 V, V <sub>CC</sub> = 5 V, I <sub>F</sub> = 7.5 mA, V <sub>O(max)</sub> = 0.8 V, R <sub>L</sub> = 350 Ω, T <sub>amb</sub> = 25 °C (1)	CM <sub>L</sub>	1000	-	-	V/μs
	V <sub>CM</sub>   = 50 V, V <sub>CC</sub> = 5 V, I <sub>F</sub> = 7.5 mA, V <sub>O(max)</sub> = 0.8 V, R <sub>L</sub> = 350 Ω, T <sub>amb</sub> = 25 °C (2)	CM <sub>L</sub>	5000	10 000	-	V/μs
	V <sub>CM</sub>   = 1 kV, V <sub>CC</sub> = 5 V, I <sub>F</sub> = 7.5 mA, V <sub>O(max)</sub> = 0.8 V, R <sub>L</sub> = 350 Ω, T <sub>amb</sub> = 25 °C (2)	CM <sub>L</sub>	15 000	25 000	-	V/μs

New

COMMON MODE TRANSIENT IMMUNITY (T <sub>amb</sub> = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART NAME	SYMBOL	MIN.	TYP.	MAX.	UNIT
Logic high common mode transient immunity	V <sub>CC</sub> = 5 V,  V <sub>CM</sub>   = 1000 V, I <sub>F</sub> = 0 mA, V <sub>O</sub> > 2.0 V, R <sub>L</sub> = 350 Ω	6N137	CM <sub>H</sub>	1000	-	-	V/μs
		VO2601		5000	-	-	
		VO2611		15 000	-	-	
Logic low common mode transient immunity	V <sub>CC</sub> = 5 V,  V <sub>CM</sub>   = 1000 V, I <sub>F</sub> = 10 mA, V <sub>O</sub> < 0.8 V, R <sub>L</sub> = 350 Ω	6N137	CM <sub>L</sub>	1000	-	-	V/μs
		VO2601		5000	-	-	
		VO2611		15 000	-	-	

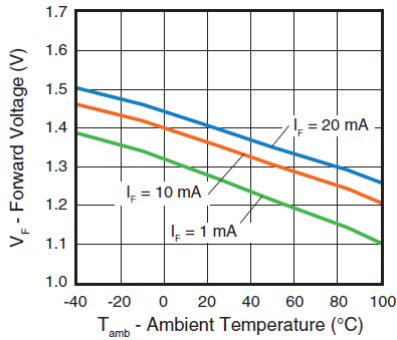
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Typical Characteristics

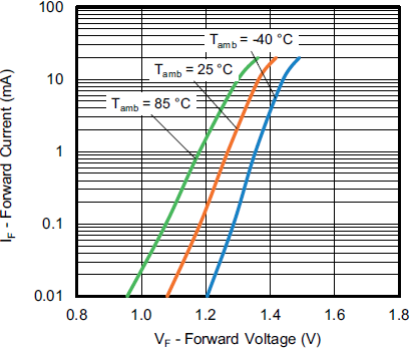
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Forward Voltage vs. Ambient Temperature

Current



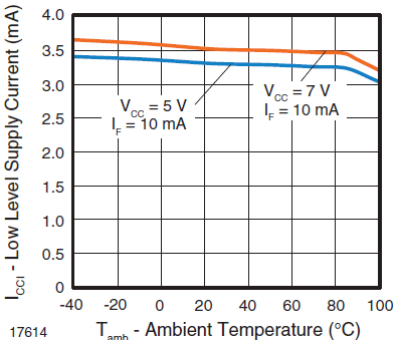
New



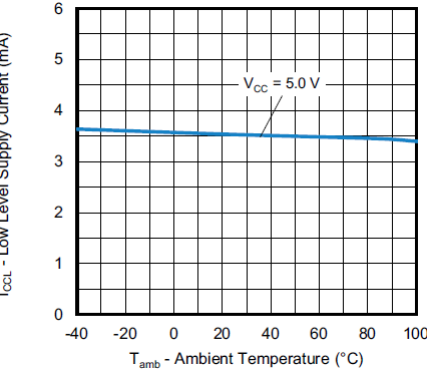
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Low Level Supply Current vs. Ambient Temperature

Current

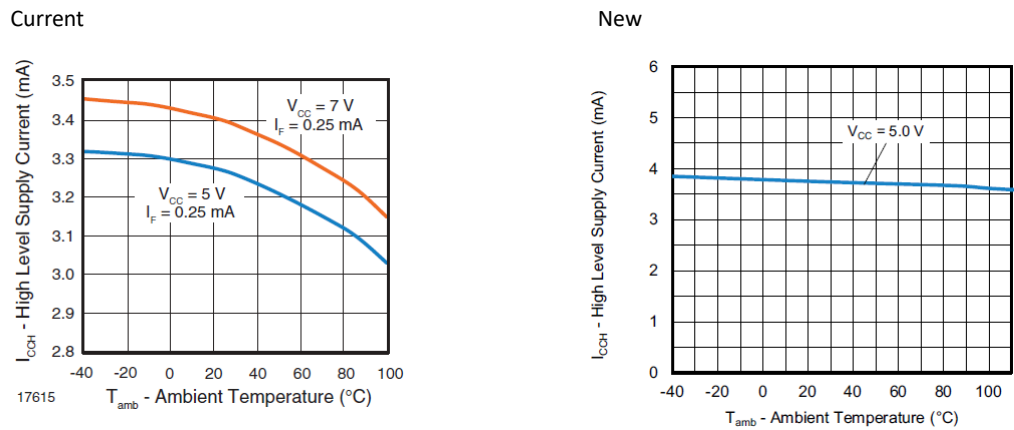


New



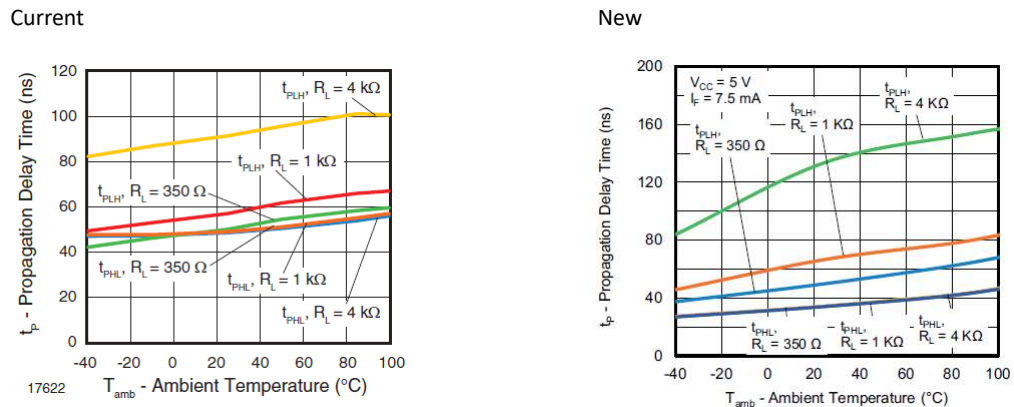
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

High Level Supply Current vs. Ambient Temperature



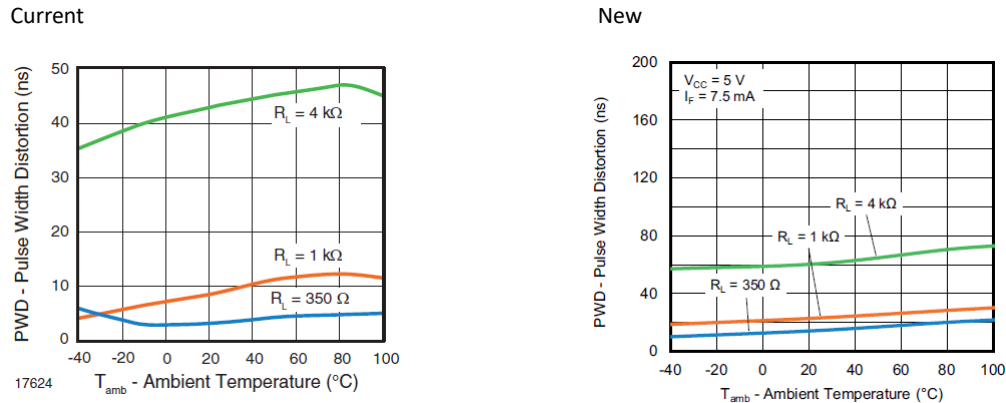
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Propagation Delay vs. Ambient Temperature



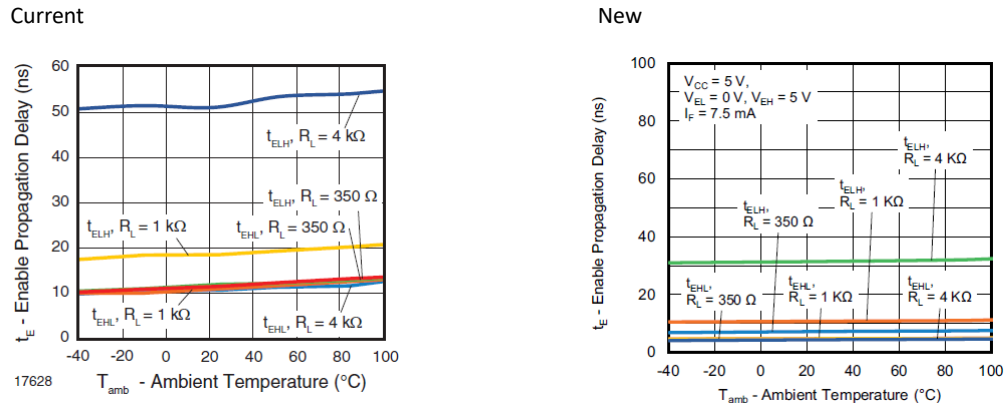
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Pulse Width Distortion vs. Ambient Temperature



© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Enable Propagation Delay vs. Ambient Temperature

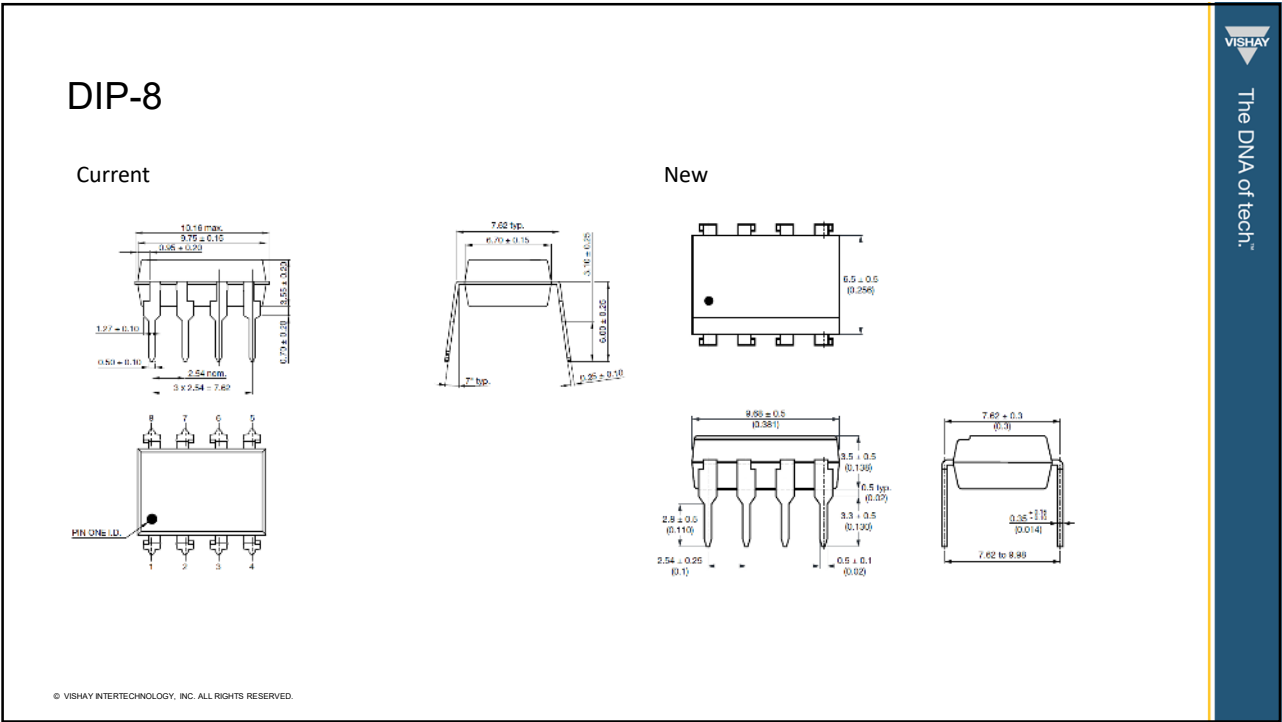


© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.





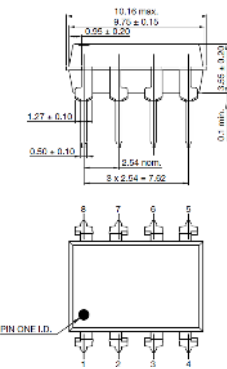
13



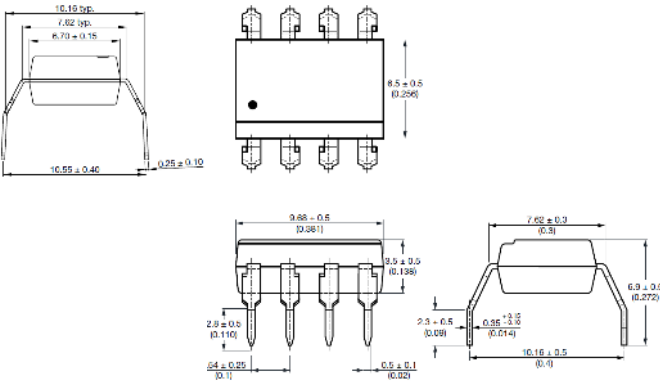
14

DIP-8, 400 mil (option 6)

Current



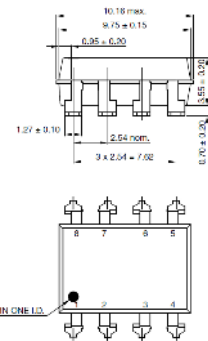
New



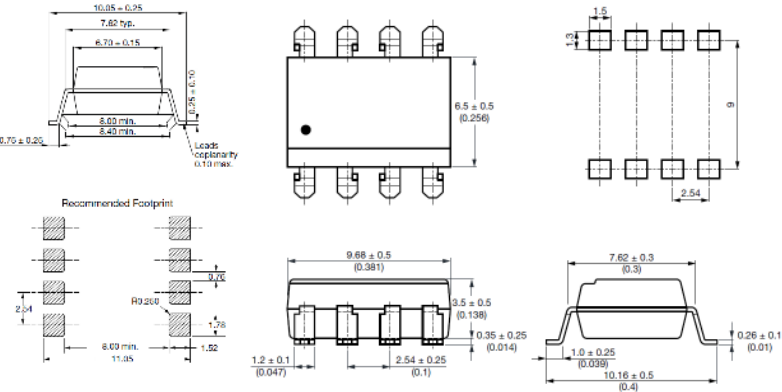
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

SMD-8

Current



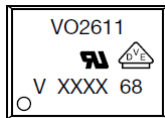
New



© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

## Package Marking

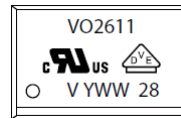
### Current



#### Notes

- XXXX = LMC (lot marking code)
- VDE logo is only marked on option 1 parts
- Tape and reel suffix (T) is not part of the package marking

### New



#### Notes

- "YWW" is the date code marking (Y = year code, WW = week code)
- VDE logo is only marked on VDE option parts
- Tape and reel suffix (T) is not part of the package marking

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

# THANK YOU

Contact Info:

e-mail: [achim.kruck@vishay.com](mailto:achim.kruck@vishay.com)

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

# PCN OPT-1300-2023 - 10 MBd open collector high speed coupler series production site transfer

## Current vs. New Production Site – Key Parameter Comparison

SOIC-8 package, single and dual channel parts

Achim Kruck

2023-10-06




The DNA of tech.™



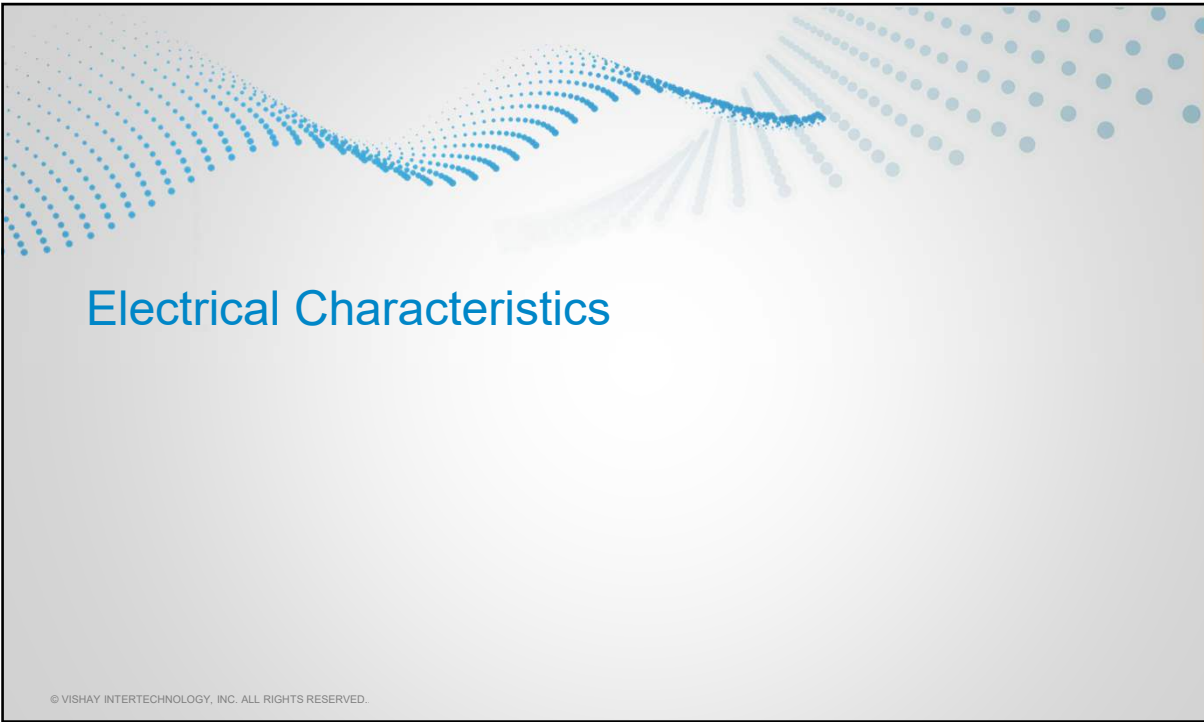
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

# Electrical Characteristics

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.



The DNA of tech.™



Input

Current

INPUT						
Input forward voltage	$I_F = 10\text{ mA}$	$V_F$	1.1	1.4	1.7	V
Reverse current	$V_R = 5\text{ V}$	$I_R$	-	0.01	10	$\mu\text{A}$
Input capacitance	$f = 1\text{ MHz}, V_F = 0\text{ V}$	$C_I$	-	55	-	pF

New

INPUT						
Input forward voltage	$I_F = 10\text{ mA}$	$V_F$	-	1.38	1.70	V
Input forward voltage temperature coefficient	$I_F = 10\text{ mA}$	$\Delta V_F / \Delta T$	-	-1.5	-	mV/K
Input reverse voltage	$I_R = 10\text{ }\mu\text{A}$	$BV_R$	5	-	-	V
Input threshold current	$V_E = 2\text{ V}, V_O = 0.6\text{ V}, V_{CC} = 5.5\text{ V}, I_{OL}(\text{sinking}) = 13\text{ mA}$	$I_{TH}$	-	2	5	mA
Input capacitance	$f = 1\text{ MHz}, V_F = 0\text{ V}$	$C_I$	-	34	-	pF

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Output

Current

OUTPUT						
High level supply current (single channel)	$V_E = 0.5\text{ V}, I_F = 0\text{ mA}$	$I_{COH}$	-	4.1	7	mA
	$V_E = V_{CC}, I_F = 0\text{ mA}$	$I_{COH}$	-	3.3	6	mA
High level supply current (dual channel)	$I_F = 10\text{ mA}$	$I_{COH}$	-	6.5	12	mA
Low level supply current (single channel)	$V_E = 0.5\text{ V}, I_F = 10\text{ mA}$	$I_{COL}$	-	4	7	mA
	$V_E = V_{CC}, I_F = 10\text{ mA}$	$I_{COL}$	-	3.3	6	mA
Low level supply current (dual channel)	$I_F = 10\text{ mA}$	$I_{COL}$	-	6.5	12	mA
High level output current	$V_E = 2\text{ V}, V_O = 5.5\text{ V}, I_F = 250\text{ }\mu\text{A}$	$I_{OH}$	-	0.002	1	$\mu\text{A}$
Low level output voltage	$V_E = 2\text{ V}, I_F = 5\text{ mA}, I_{OL}(\text{sinking}) = 13\text{ mA}$	$V_{OL}$	-	0.2	0.6	V
Input threshold current	$V_E = 2\text{ V}, V_O = 5.5\text{ V}, I_{OL}(\text{sinking}) = 13\text{ mA}$	$I_{TH}$	-	2.4	5	mA
High level enable current		$I_{EH}$	-	-0.6	-1.6	mA
Low level enable current		$I_{EL}$	-	-0.6	-1.6	mA
High level enable voltage		$V_{EH}$	2	-	-	V
Low level enable voltage		$V_{EL}$	-	-	0.8	V

New

OUTPUT						
Low level supply current	$I_F = 10\text{ mA}, V_{CC} = 5.5\text{ V}, V_E = 0.5\text{ V}$	$I_{COL}$	-	3.5	5	mA
High level supply current	$I_F = 0\text{ mA}, V_{CC} = 5.5\text{ V}, V_E = 0.5\text{ V}$	$I_{COH}$	-	3.7	5	mA
Low level enable current	$V_{CC} = 5.5\text{ V}, V_E = 0.5\text{ V}$	$I_{EL}$	-	-0.9	-1.6	mA
High level enable current	$V_{CC} = 5.5\text{ V}, V_E = 2\text{ V}$	$I_{EH}$	-	-0.6	-1.6	mA
Low level enable voltage		$V_{EL}$	-	-	0.8	V
High level enable voltage		$V_{EH}$	2	-	-	V
Low level output voltage	$V_{CC} = 5.5\text{ V}, V_E = 2\text{ V}, I_F = 5\text{ mA}, I_{OL}(\text{sinking}) = 13\text{ mA}$	$V_{OL}$	-	0.20	0.60	V
High level output current	$V_{CC} = 5.5\text{ V}, V_E = 2\text{ V}, V_O = 5.5\text{ V}, I_F = 250\text{ }\mu\text{A}$	$I_{OH}$	-	1	10	$\mu\text{A}$

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

CMTI

Current

COMMON MODE TRANSIENT IMMUNITY						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Common mode transient immunity (high)	$ V_{CM}  = 10\text{ V}$ , $V_{CC} = 5\text{ V}$ , $I_F = 0\text{ mA}$ , $V_{O(min)} = 2\text{ V}$ , $R_L = 350\text{ }\Omega$ , $T_{amb} = 25\text{ }^{\circ}\text{C}^{(1)}$	$ CM_{IH} $	1000			V/ $\mu\text{s}$
	$ V_{CM}  = 50\text{ V}$ , $V_{CC} = 5\text{ V}$ , $I_F = 0\text{ mA}$ , $V_{O(min)} = 2\text{ V}$ , $R_L = 350\text{ }\Omega$ , $T_{amb} = 25\text{ }^{\circ}\text{C}^{(2)}$	$ CM_{IH} $	5000	10 000		V/ $\mu\text{s}$
	$ V_{CM}  = 1\text{ kV}$ , $V_{CC} = 5\text{ V}$ , $I_F = 0\text{ mA}$ , $V_{O(min)} = 2\text{ V}$ , $R_L = 350\text{ }\Omega$ , $T_{amb} = 25\text{ }^{\circ}\text{C}^{(3)}$	$ CM_{IH} $	15 000	25 000		V/ $\mu\text{s}$
Common mode transient immunity (low)	$ V_{CM}  = 10\text{ V}$ , $V_{CC} = 5\text{ V}$ , $I_F = 7.5\text{ mA}$ , $V_{O(max)} = 0.8\text{ V}$ , $R_L = 350\text{ }\Omega$ , $T_{amb} = 25\text{ }^{\circ}\text{C}^{(1)}$	$ CM_{IL} $	1000			V/ $\mu\text{s}$
	$ V_{CM}  = 50\text{ V}$ , $V_{CC} = 5\text{ V}$ , $I_F = 7.5\text{ mA}$ , $V_{O(max)} = 0.8\text{ V}$ , $R_L = 350\text{ }\Omega$ , $T_{amb} = 25\text{ }^{\circ}\text{C}^{(2)}$	$ CM_{IL} $	5000	10 000		V/ $\mu\text{s}$
	$ V_{CM}  = 1\text{ kV}$ , $V_{CC} = 5\text{ V}$ , $I_F = 7.5\text{ mA}$ , $V_{O(max)} = 0.8\text{ V}$ , $R_L = 350\text{ }\Omega$ , $T_{amb} = 25\text{ }^{\circ}\text{C}^{(3)}$	$ CM_{IL} $	15 000	25 000		V/ $\mu\text{s}$

New

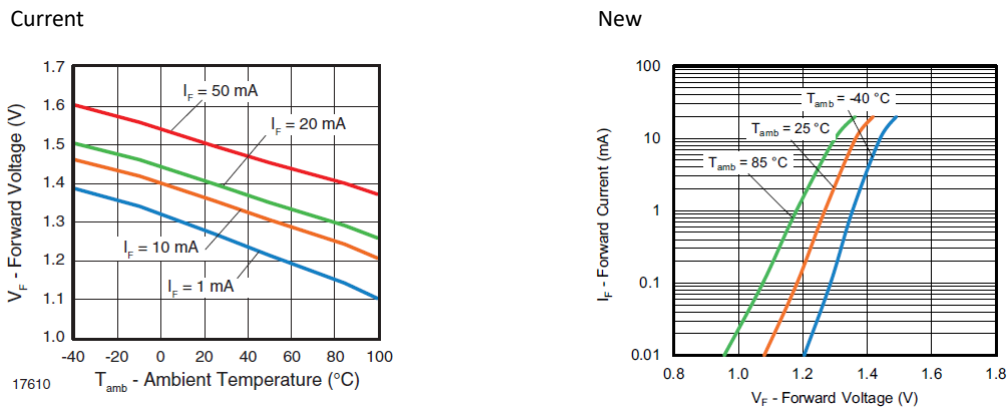
COMMON MODE TRANSIENT IMMUNITY (T <sub>amb</sub> = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART NUMBER	SYMBOL	MIN.	TYP.	MAX.	UNIT
Logic high common mode transient immunity	V <sub>CC</sub> = 5 V,  V <sub>CM</sub>   = 1000 V, I <sub>F</sub> = 0 mA, V <sub>O</sub> > 2.0 V, R <sub>L</sub> = 350 Ω	CM <sub>H</sub>	VO0600	1 000	-	-	V/μs
		CM <sub>H</sub>	VO0601	5 000	-	-	V/μs
		CM <sub>H</sub>	VO0611	15 000	-	-	V/μs
Logic low common mode transient immunity	V <sub>CC</sub> = 5 V,  V <sub>CM</sub>   = 1000 V, I <sub>F</sub> = 10 mA, V <sub>O</sub> < 0.8 V, R <sub>L</sub> = 350 Ω	CM <sub>L</sub>	VO0600	1 000	-	-	V/μs
		CM <sub>L</sub>	VO0601	5 000	-	-	V/μs
		CM <sub>L</sub>	VO0611	15 000	-	-	V/μs

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Typical Characteristics

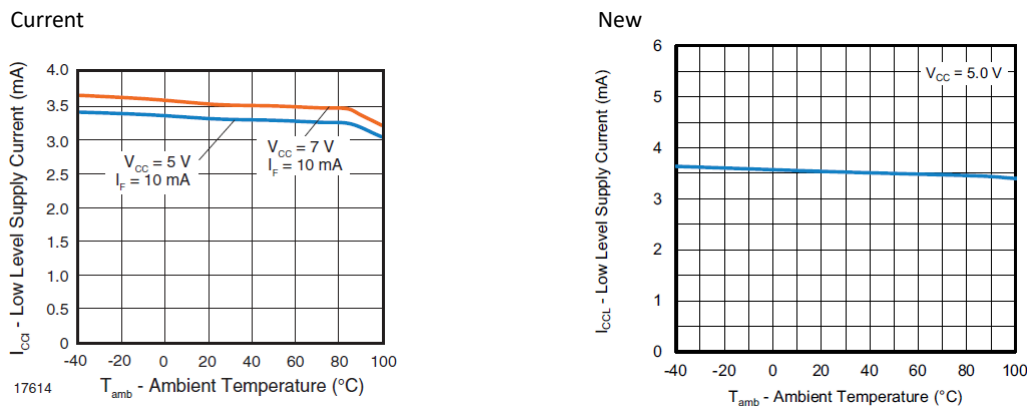
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Forward Voltage vs. Ambient Temperature



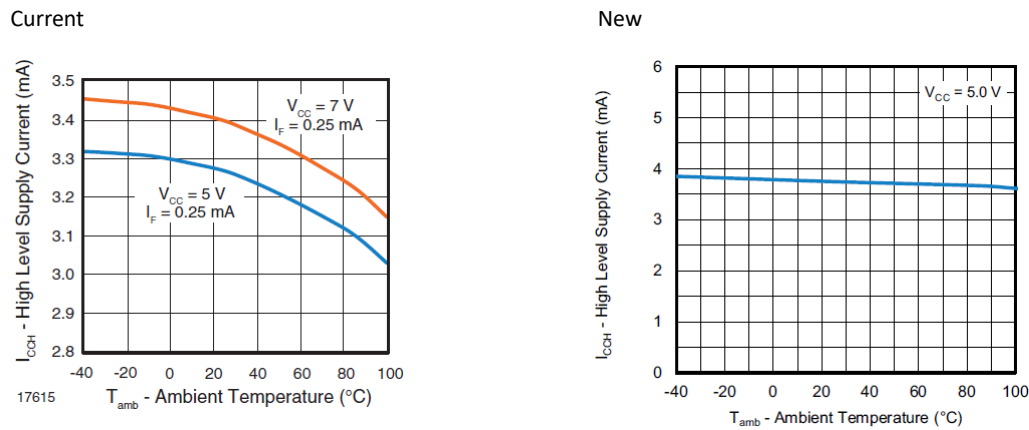
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Low Level Supply Current vs. Ambient Temperature



© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

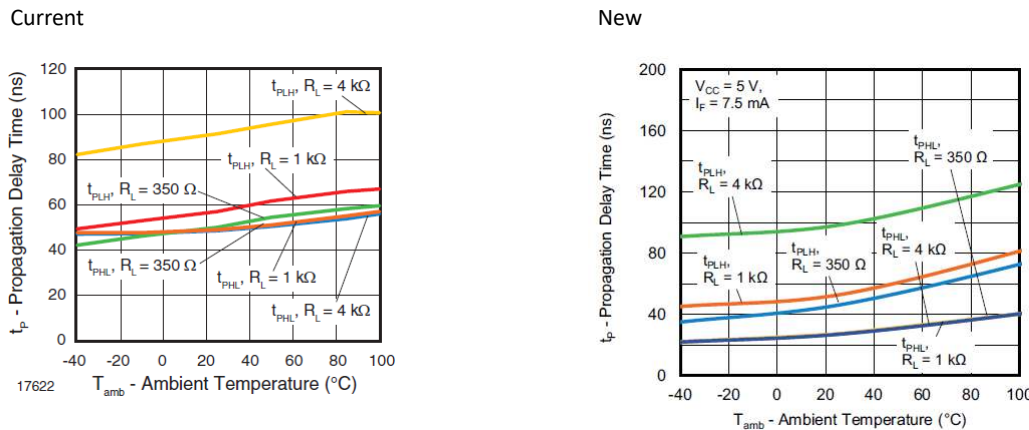
High Level Supply Current vs. Ambient Temperature



© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

27

Propagation Delay vs. Ambient Temperature

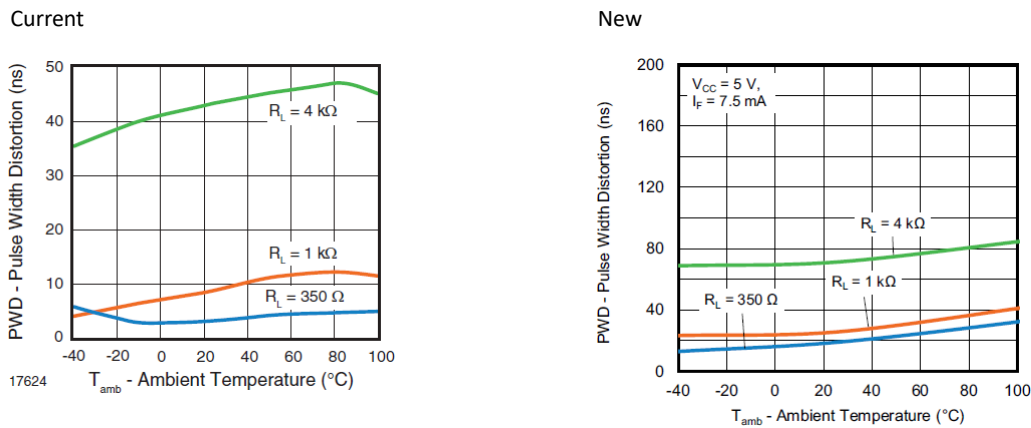


© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

28

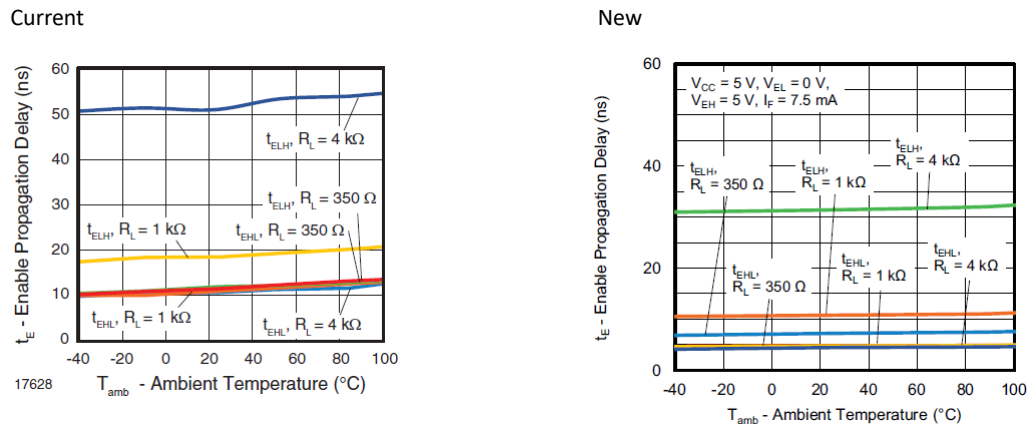


Pulse Width Distortion vs. Ambient Temperature



© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Enable Propagation Delay vs. Ambient Temperature



© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

The DNA of tech.™

Package Dimensions & Marking

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

31

The DNA of tech.™

SOIC-8

Current

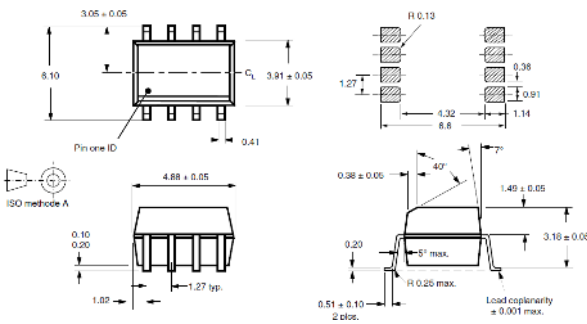


Diagram showing current SOIC-8 package dimensions. Key dimensions include: overall width 8.10, pin pitch 0.41, pin 1 ID, ISO method A, and various pin dimensions like 3.05 ± 0.05, 3.91 ± 0.05, 4.88 ± 0.05, 1.27 typ., 1.02, 0.10, 0.20, 0.51 ± 0.10, 2 tfls., 0.38 ± 0.05, 40°, 7°, 1.40 ± 0.65, 3.10 ± 0.05, R 0.25 max., and Load coplanarity ± 0.001 max.

New

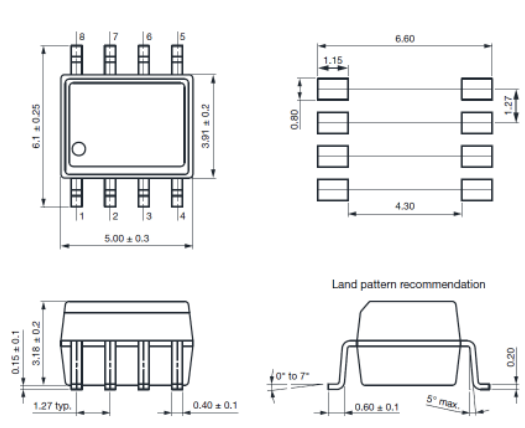


Diagram showing new SOIC-8 package dimensions. Key dimensions include: overall width 6.60, pin pitch 1.27, pin 1 ID, ISO method A, and various pin dimensions like 6.1 ± 0.25, 3.91 ± 0.2, 5.00 ± 0.3, 0.15 ± 0.1, 3.19 ± 0.2, 1.27 typ., 0.40 ± 0.1, 0.60 ± 0.1, 5° max., and 0° to 7°.


32

16

### Package Marking

Current

0601X1




○ V XXXX 68

Notes

- XXXX = LMC (lot marking code)
- VDE logo is only marked on option 1 parts
- Tape and reel suffix (T) is not part of the package marking

New

VO0601



○ VYWW25

Notes

- "YWW" is the date code marking (Y = year code, WW = week code)
- VDE logo is only marked on VDE option parts
- Tape and reel suffix (T) is not part of the package marking

VISHAY

The DNA of tech.™

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

33

VISHAY

The DNA of tech.™

THANK YOU

Contact Info:  
e-mail: [achim.kruck@vishay.com](mailto:achim.kruck@vishay.com)

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

34

17

PCN OPT-1300-2023 - 10 MBd open collector high speed coupler series production site transfer  
Current vs. New Production Site – Key Parameter Comparison

WDIP-8 package, single and dual channel parts

Achim Kruck

2023-10-06




The DNA of tech.™



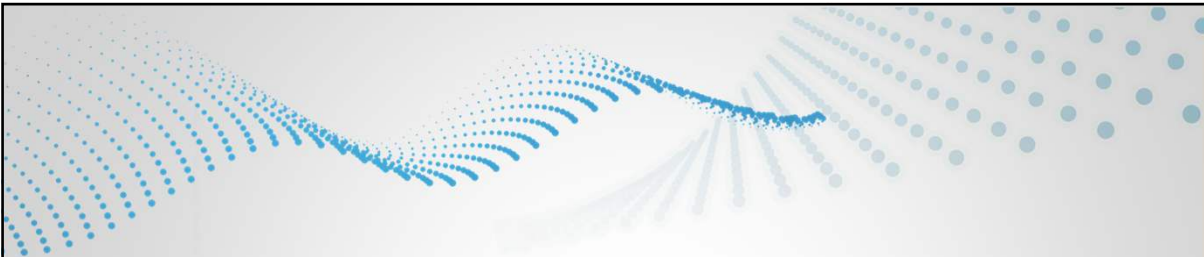
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

35

Electrical Characteristics



The DNA of tech.™



© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

36

Input

Current

INPUT						
Input forward voltage	$I_F = 10\text{ mA}$	$V_F$	1.1	1.4	1.7	V
Reverse current	$V_R = 5\text{ V}$	$I_R$	-	0.01	10	$\mu\text{A}$
Input capacitance	$f = 1\text{ MHz}, V_F = 0\text{ V}$	$C_I$	-	38	-	pF

New

INPUT						
Input forward voltage	$I_F = 10\text{ mA}$	$V_F$	-	1.38	1.70	V
Input forward voltage temperature coefficient	$I_F = 10\text{ mA}$	$\Delta V_F / \Delta T$	-	-1.5	-	mV/K
Input reverse voltage	$I_R = 10\text{ }\mu\text{A}$	$BV_R$	5	-	-	V
Input threshold current	$V_E = 2\text{ V}, V_O = 0.6\text{ V}, V_{CC} = 5.5\text{ V}, I_{OL}(\text{sinking}) = 13\text{ mA}$	$I_{TH}$	-	2	5	mA
Input capacitance	$f = 1\text{ MHz}, V_F = 0\text{ V}$	$C_I$	-	34	-	pF

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Output

Current

OUTPUT						
High level supply current	$V_E = 0.5\text{ V}, I_F = 0\text{ mA}$	$I_{OCH}$	-	4.3	10	mA
	$V_E = V_{CC}, I_F = 0\text{ mA}$	$I_{OCH}$	-	3.3	-	mA
Low level supply current	$V_E = 0.5\text{ V}, I_F = 10\text{ mA}$	$I_{OCL}$	-	4.3	13	mA
	$V_E = V_{CC}, I_F = 10\text{ mA}$	$I_{OCL}$	-	3.3	6	mA
High level output current	$V_E = 2\text{ V}, V_O = 5.5\text{ V}, I_F = 250\text{ }\mu\text{A}$	$I_{OH}$	-	0.02	10	$\mu\text{A}$
Low level output voltage	$V_E = 2\text{ V}, I_F = 5\text{ mA}, I_{OL}(\text{sinking}) = 13\text{ mA}$	$V_{OL}$	-	0.2	0.6	V
Input threshold current	$V_E = 2\text{ V}, V_O = 0.6\text{ V}, I_{OL}(\text{sinking}) = 13\text{ mA}$	$I_{TH}$	-	2.4	5	mA
Input-output capacitance	$f = 1\text{ MHz}, T_{AMB} = 25\text{ }^\circ\text{C}$	$C_{IO}$	-	0.9	-	pF
High level enable current	$V_E = 2\text{ V}$	$I_{EH}$	-	-0.6	-1.6	mA
Low level enable current	$V_E = 0.5\text{ V}$	$I_{EL}$	-	-0.8	-1.6	mA
High level enable voltage		$V_{EH}$	2	-	-	V
Low level enable voltage		$V_{EL}$	-	-	0.8	V

New

OUTPUT						
Low level supply current	$I_F = 10\text{ mA}, V_{CC} = 5.5\text{ V}, V_E = 0.5\text{ V}$	$I_{OCL}$	-	3.5	5	mA
High level supply current	$I_F = 0\text{ mA}, V_{CC} = 5.5\text{ V}, V_E = 0.5\text{ V}$	$I_{OCH}$	-	3.7	5	mA
Low level enable current	$V_{CC} = 5.5\text{ V}, V_E = 0.5\text{ V}$	$I_{EL}$	-	-0.9	-1.6	mA
High level enable current	$V_{CC} = 5.5\text{ V}, V_E = 2\text{ V}$	$I_{EH}$	-	-0.6	-1.6	mA
Low level enable voltage		$V_{EL}$	-	-	0.8	V
High level enable voltage		$V_{EH}$	2	-	-	V
Low level output voltage	$V_{CC} = 5.5\text{ V}, V_E = 2\text{ V}, I_F = 5\text{ mA}, I_{OL}(\text{sinking}) = 13\text{ mA}$	$V_{OL}$	-	0.20	0.60	V
High level output current	$V_{CC} = 5.5\text{ V}, V_E = 2\text{ V}, V_O = 5.5\text{ V}, I_F = 250\text{ }\mu\text{A}$	$I_{OH}$	-	1	10	$\mu\text{A}$

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

CMTI

Current

COMMON MODE TRANSIENT IMMUNITY							
PARAMETER	TEST CONDITION	DEVICE	SYMBOL	MIN.	TYP.	MAX.	UNIT
Common mode transient immunity	$ V_{CM}  = 1\text{ kV}$ , $V_{CC} = 5\text{ V}$ , $I_F = 0\text{ mA}$ <sup>(1)(2)(3)(4)</sup>	VOW137	$ CM_H $	10 000			V/ $\mu$ s
	$ V_{CM}  = 1\text{ kV}$ , $V_{CC} = 5\text{ V}$ , $I_F = 0\text{ mA}$ <sup>(1)(2)(5)</sup>	VOW2611	$ CM_H $	25 000	40 000		V/ $\mu$ s
	$ V_{CM}  = 1\text{ kV}$ , $V_{CC} = 5\text{ V}$ , $I_F = 7.5\text{ mA}$ <sup>(1)(2)(3)(4)</sup>	VOW137	$ CM_L $	10 000			V/ $\mu$ s
	$ V_{CM}  = 1\text{ kV}$ , $V_{CC} = 5\text{ V}$ , $I_F = 7.5\text{ mA}$ <sup>(1)(2)(5)</sup>	VOW2611	$ CM_L $	25 000	40 000		V/ $\mu$ s

New

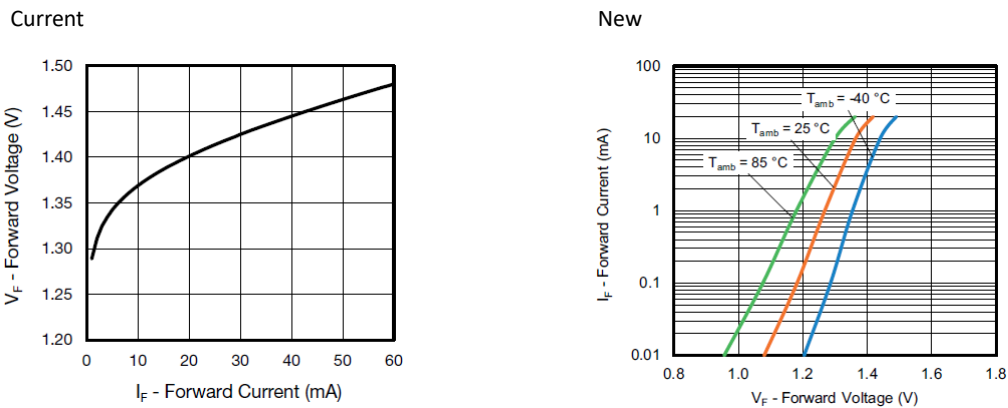
COMMON MODE TRANSIENT IMMUNITY ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)							
PARAMETER	TEST CONDITION	DEVICE	SYMBOL	MIN.	TYP.	MAX.	UNIT
Common mode transient immunity	$ V_{CM}  = 1\text{ kV}$ , $V_{CC} = 5\text{ V}$ , $I_F = 0\text{ mA}$	VOW137	$ CM_H $	10 000	-	-	V/ $\mu$ s
	$ V_{CM}  = 1\text{ kV}$ , $V_{CC} = 5\text{ V}$ , $I_F = 0\text{ mA}$	VOW2611	$ CM_H $	25 000	-	-	V/ $\mu$ s
	$ V_{CM}  = 1\text{ kV}$ , $V_{CC} = 5\text{ V}$ , $I_F = 7.5\text{ mA}$	VOW137	$ CM_L $	10 000	-	-	V/ $\mu$ s
	$ V_{CM}  = 1\text{ kV}$ , $V_{CC} = 5\text{ V}$ , $I_F = 7.5\text{ mA}$	VOW2611	$ CM_L $	25 000	-	-	V/ $\mu$ s

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Typical Characteristics

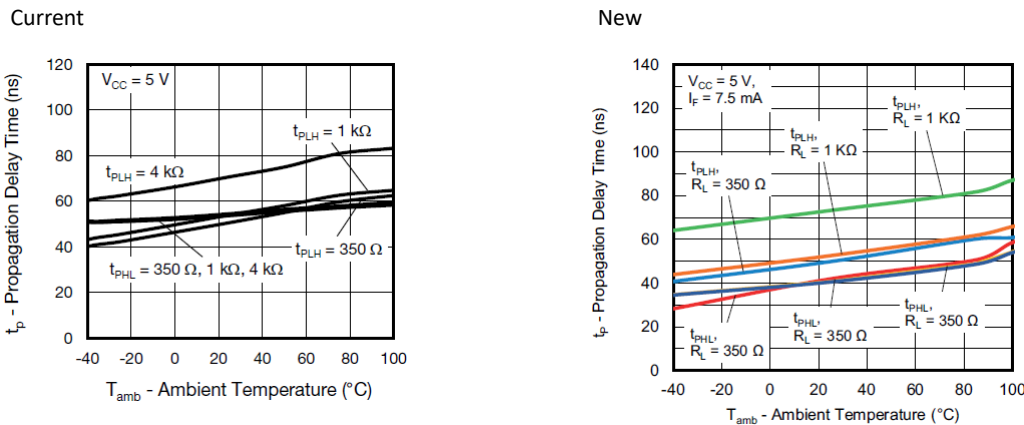
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Forward Voltage vs. Ambient Temperature



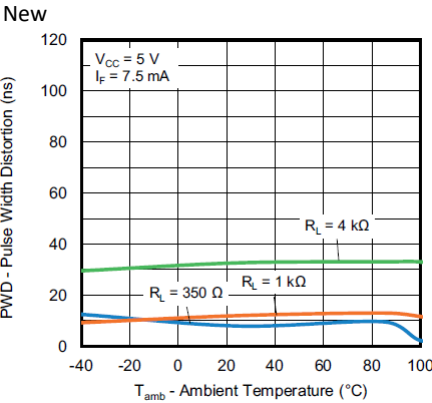
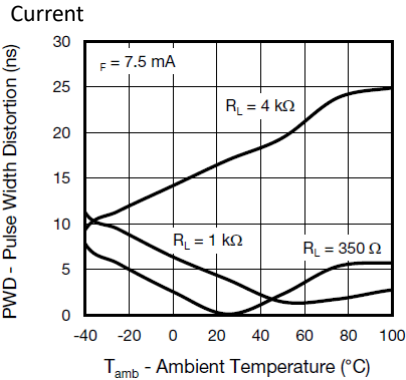
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Propagation Delay vs. Ambient Temperature



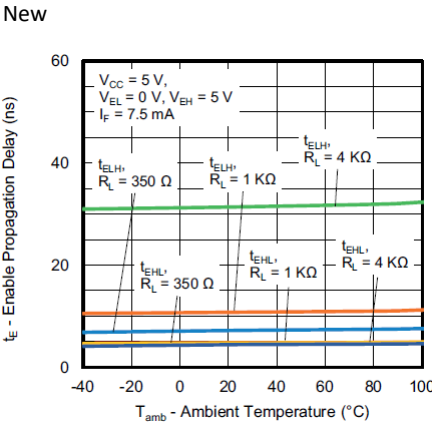
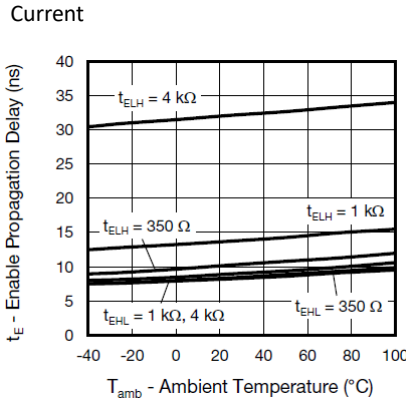
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Pulse Width Distortion vs. Ambient Temperature



© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

Enable Propagation Delay vs. Ambient Temperature

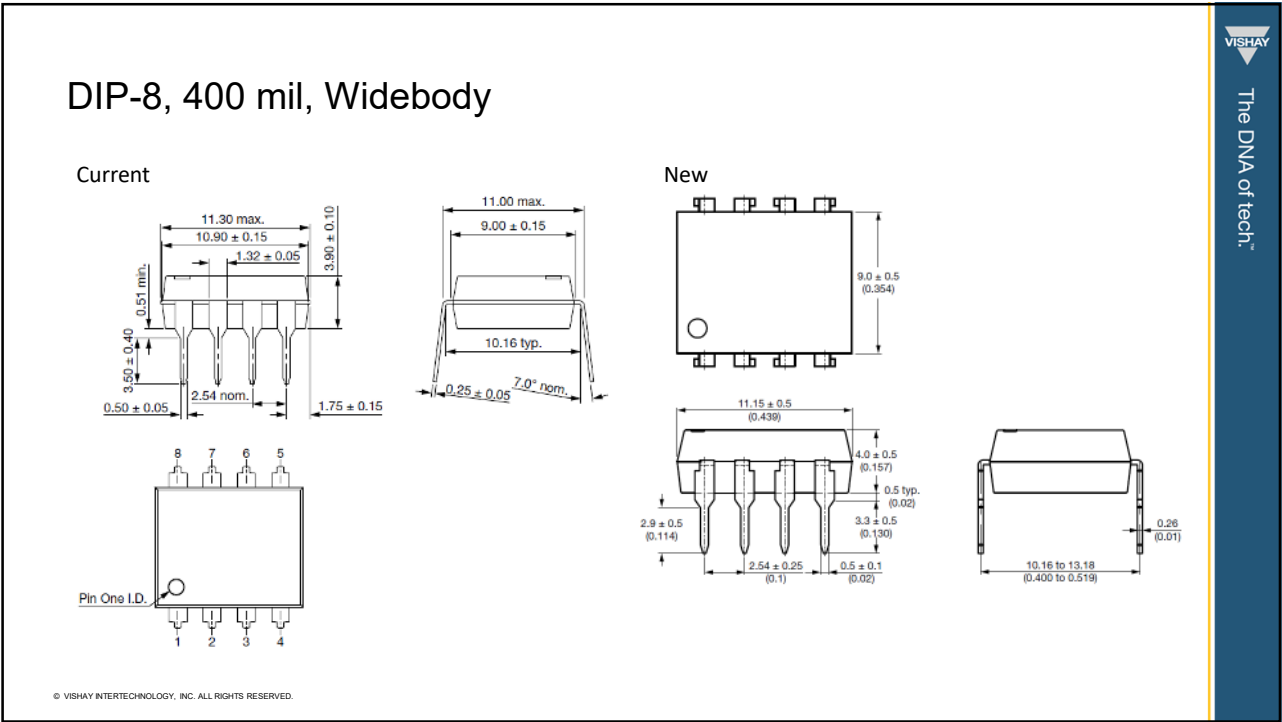


© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.





45

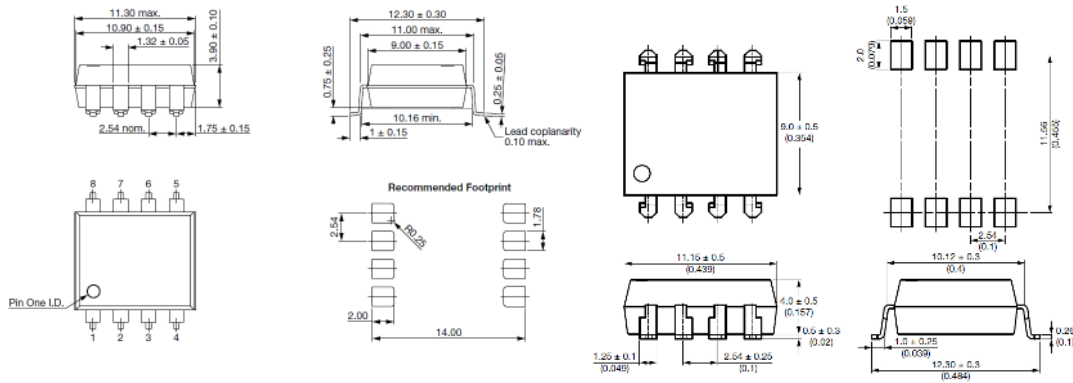


46

**VISHAY**

The DNA of tech.™

New



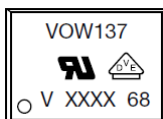
© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED

47

**VISHAY**

The DNA of tech.

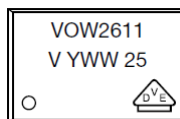
Current



## Notes

- XXXX = LMC (lot marking code)
- Tape and reel suffix (T) is not part of the package marking

New



## Notes

- “YWW” is the date code marking (Y = year code, WW = week code)
- VDE logo is only marked on VDE option parts
- Tape and reel suffix (T) is not part of the package marking

© VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED

48

