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Product Change Notification

Product Group: OPT/Wednesday December 17, 2025/PCN-OPT-1469-2025-REV-0

New emitter LED and bonding type improvement on IGBT and high speed optocoupler

For further information, please contact your regional Vishay office.

CONTACT INFORMATION

Americas

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Europe

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Asia

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Description of Change: The emitter chip currently used in 1 Mbd and 10 MBd high speed and IGBT driver optocoupler has been discontinued. The emitter chip will be replaced with an technically equivalent one. The bonding type will be standardized to BSOB reverse bond.
Affected series are listed in the attached table

Reason for Change: Emitter chip EOL and bonding type improvement.

Expected Influence on Quality/Reliability/Performance: Some characteristics, typical and maximum values of the 1 MBd high speed coupler VOH1016A will be adapted to the new emitter chip. Other parameters will stay the same. No other 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: Sunday March 1, 2026

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 chipset.

Product Identification: By datecode.

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 Saturday February 28, 2026 or as specified by contract.

Issued By:

6N136	6N136-X017T	6N137	6N137-X006	6N137-X007T
6N139	6N139-X001	6N139-X007T	6N139-X017T	SFH6319T
VO0600T	VO0601-X001T	VO0601T	VO0611T	VO0630T
VO0631-X001T	VO0631T	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	VOD3120A-3139	VOD3120AB-T	VOD3120AB-T2	VOD3120AB-VT
VOD3120AB-VT2	VOD3120AD	VOD3120AD-V	VOD3120AG	VOD3120AG-V
VOFD341A-X008T	VOFD341A-X009T	VOFD341A-X018T	VOFD341A-X019T	VOFD343A-X008T
VOFD343A-X009T	VOFD343A-X018T	VOFD343A-X019T	VOH1016AB-T	VOH1016AB-T2
VOH1016AB-VT	VOH1016AB-VT2	VOH1016AD	VOH1016AD-V	VOH1016AG
VOH1016AG-V	VOH260A	VOH260A-X001	VOH260A-X006	VOH260A-X007T
VOH260A-X016	VOH260A-X017T	VOH263A	VOH263A-X001	VOH263A-X006
VOH263A-X007T	VOH263A-X016	VOH263A-X017T	VOIH060A-X001T	VOIH060AT
VOIH063A-X001T	VOIH063AT	VOM453T	VOW136-X001	VOW136-X017T
VOW137-X001	VOW137-X017T	VOWH260A	VOWH260A-X001	VOWH260A-X007T
VOWH260A-X017T				

Emitter LED and Bonding Type
PCN OPT-1469-2025

Comparison

2025-11-28

Achim M. Kruck
Sr. Manager Product Marketing
Optocouplers & Solid-State Relays

Emitter LED Chip

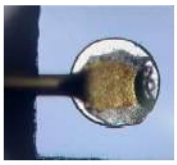
Type	Dimension
Chip size	245 x 245 ± 25um
Chip thickness	170 ± 25um
Pad size	110 ± 10um

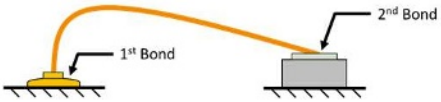
before PCN

Type	Dimension
Chip size	270 x 270 ± 25um
Chip thickness	170 ± 25um
Pad size	105 ± 10um

after PCN

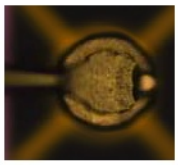
Bonding Type

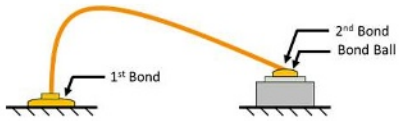




Reverse Bond
Put fishtail (2nd bond) on bond pad only

before PCN





BSOB Reverse Bond
Add one more bond ball on pad, then put fishtail

after PCN

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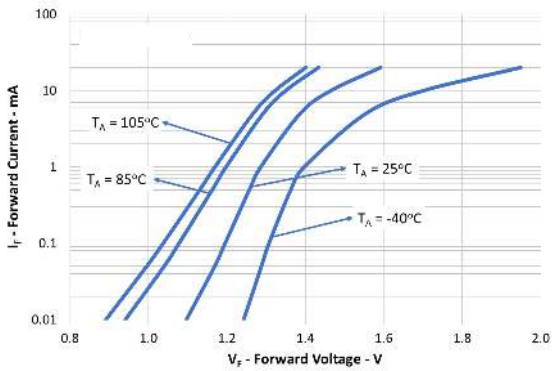
6N137
PCN OPT-1469-2025

Key Parameter Comparison

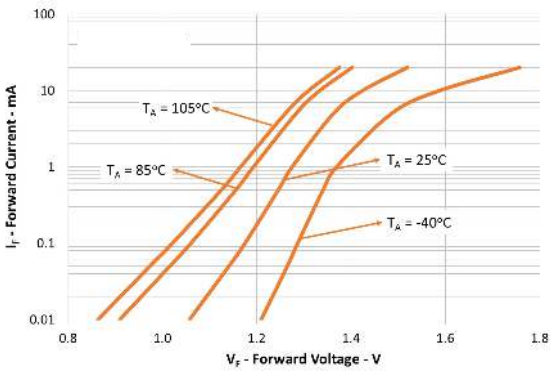
2025-11-28

Sr. Manager Product Marketing
Optocouplers & Solid-State Relays

Forward Voltage vs. Forward Current

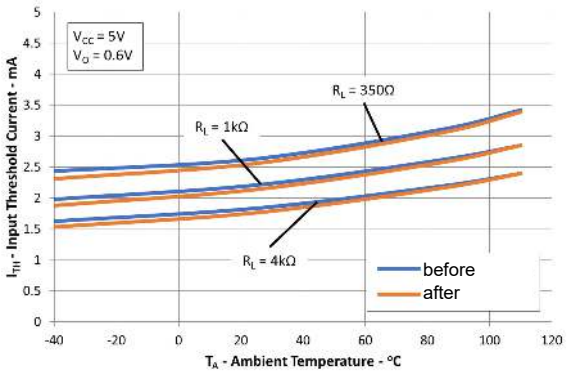


before PCN

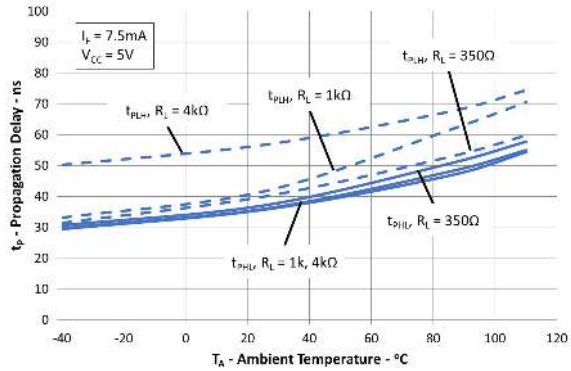


after PCN

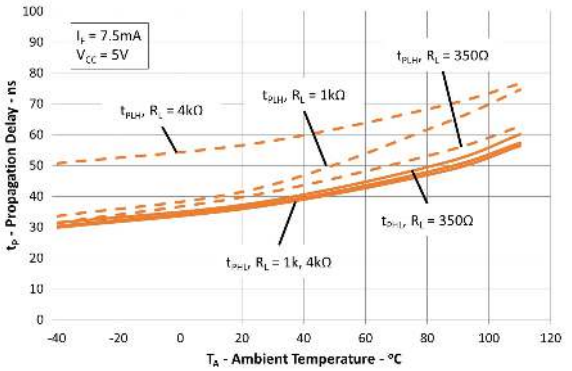
Forward Voltage vs. Forward Current



Propagation Delay Time vs. Ambient Temperature



before PCN



after PCN

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VOH1016A
PCN OPT-1469-2025

Key Parameter Comparison

2025-11-28

Achim M. Kruck
Sr. Manager Product Marketing
Optocouplers & Solid-State Relays

Absolut Maximum Ratings

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	CONDITIONS	SYMBOL	VALUE	UNIT
INPUT				
Forward current		I_F	50	mA
Reverse voltage		V_R	6	V
Power dissipation		P_{diss}	120	mW
OUTPUT				
Supply voltage		V_{CC}	16	V
Output voltage		V_O	V_{CC}	V
Output current		I_O	50	mA
Power dissipation		P_{diss}	130	mW
COUPLER				
Power dissipation		P_{diss}	250	mW
Storage temperature		T_{stg}	-55 to +150	°C
Operating temperature		T_{amb}	-40 to +110	°C
Solder temperature	For 10 s	T_{sld}	260	°C

before PCN

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	CONDITIONS	SYMBOL	VALUE	UNIT
INPUT				
Forward current		I_F	50	mA
Reverse voltage		V_R	6	V
Power dissipation		P_{diss}	120	mW
OUTPUT				
Supply voltage		V_{CC}	16	V
Output voltage		V_O	V_{CC}	V
Output current		I_O	20	mA
Power dissipation		P_{diss}	130	mW
COUPLER				
Power dissipation		P_{diss}	250	mW
Storage temperature		T_{stg}	-55 to +150	°C
Operating temperature		T_{amb}	-40 to +110	°C
Solder temperature	For 10 s	T_{sld}	260	°C

after PCN

Electrical Characteristics

ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
INPUT						
Forward voltage	I_F = 4 mA	V_F	-	1.1	1.4	V
	I_F = 0.3 mA		0.7	1.0	-	
Reverse current	V_R = 3 V	I_R	-	-	10	µA
Input capacitance	f = 1 MHz, V_F = 0 V	C_{IN}	-	30	250	pF
OUTPUT						
Supply voltage		V_{CC}	3	-	15	V
High level supply current	I_F = 0 mA, V_{CC} = 5 V	I_{CCH}	-	0.55	1.0	mA
Low level supply current	I_F = 4 mA, V_{CC} = 5 V	I_{CCL}	-	0.55	1.0	mA
High level output current	V_{CC} = V_O = 15 V, I_F = 0 mA	I_{OH}	-	-	100	µA
Low level output voltage	V_{CC} = 5 V, I_F = 4 mA, I_{OL} = 16 mA	V_{OL}	-	0.2	0.4	V
Turn-On threshold current	V_{CC} = 5 V, R_L = 280 Ω	$I_{F(on)}$	-	0.65	2.0	mA
Turn-Off threshold current	V_{CC} = 5 V, R_L = 280 Ω	$I_{F(off)}$	0.4	0.6	-	mA
Hysteresis ratio	V_{CC} = 5 V, R_L = 280 Ω	$I_{F(off)}/I_{F(on)}$	0.5	0.9	0.95	

before PCN

ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
INPUT						
Forward voltage	I_F = 4 mA	V_F	-	1.36	1.6	V
	I_F = 0.3 mA		0.7	1.0	-	
Reverse current	V_R = 3 V	I_R	-	-	10	µA
Input capacitance	f = 1 MHz, V_F = 0 V	C_{IN}	-	30	250	pF
OUTPUT						
Supply voltage		V_{CC}	3	-	15	V
High level supply current	I_F = 0 mA, V_{CC} = 5 V	I_{CCH}	-	0.7	1.3	mA
Low level supply current	I_F = 4 mA, V_{CC} = 5 V	I_{CCL}	-	0.7	1.3	mA
High level output current	V_{CC} = V_O = 15 V, I_F = 0 mA	I_{OH}	-	-	100	µA
Low level output voltage	V_{CC} = 5 V, I_F = 4 mA, I_{OL} = 16 mA	V_{OL}	-	0.2	0.4	V
Turn-On threshold current	V_{CC} = 5 V, R_L = 280 Ω	$I_{F(on)}$	-	1	1.6	mA
Turn-Off threshold current	V_{CC} = 5 V, R_L = 280 Ω	$I_{F(off)}$	0.3	0.75	-	mA
Hysteresis ratio	V_{CC} = 5 V, R_L = 280 Ω	$I_{F(off)}/I_{F(on)}$	0.5	0.75	0.9	

after PCN

Switching Characteristics

SWITCHING CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Propagation delay time to high output level	R_L = 280 Ω, V_{CC} = 5 V, I_F = 4 mA	t_{PLH}	-	0.25	2	µs
Propagation delay time to low output level		t_{PHL}	-	0.05	1.2	µs
Rise time		t_r	-	0.05	0.5	µs
Fall time		t_f	-	0.04	0.5	µs
Data rate			-	2	-	MHz

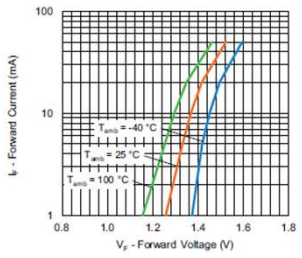
before PCN

SWITCHING CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

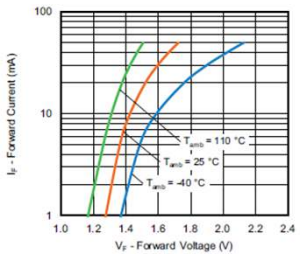
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Propagation delay time to high output level	R_L = 280 Ω, V_{CC} = 5 V, I_F = 4 mA	t_{PLH}	-	0.18	0.5	µs
Propagation delay time to low output level		t_{PHL}	-	0.12	0.5	µs
Rise time		t_r	-	0.05	0.5	µs
Fall time		t_f	-	0.04	0.5	µs
Data rate			-	2	-	MHz

after PCN

Forward Voltage vs. Forward Current

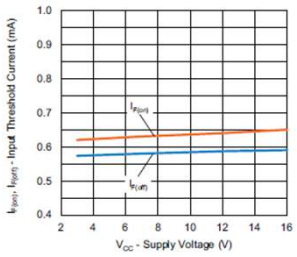


before PCN

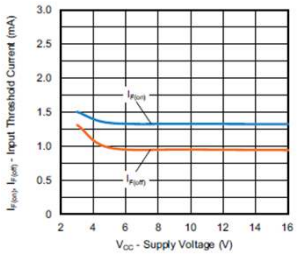


after PCN

Input Threshold Current vs. Supply Voltage

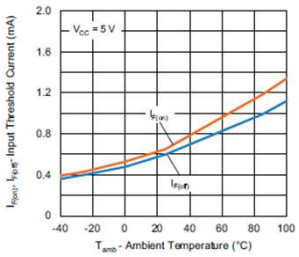


before PCN

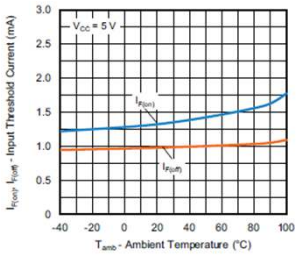


after PCN

Input Threshold Current vs. Ambient Temperature

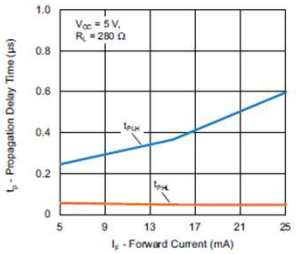


before PCN

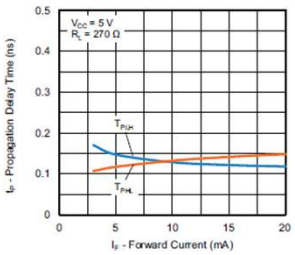


after PCN

Propagation Delay Time vs. Forward Current

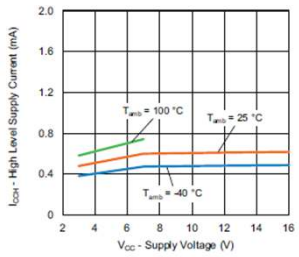


before PCN

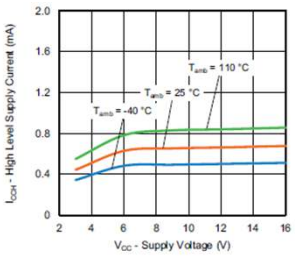


after PCN

High Level Supply Current vs. Supply Voltage

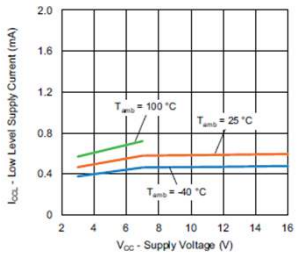


before PCN

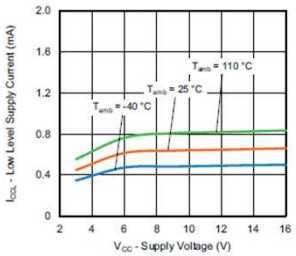


after PCN

Low Level Supply Current vs. Supply Voltage



before PCN



after PCN

	new emitter LED	Bonding Type Change	Spec Change
VOIH060A series	x	-	-
VOIH063A series	x	-	-
VOWH260A series	x	-	-
VOH260A series	x	-	-
VOH263A series	x	-	-
6N137 series	x	x	-
VO2601 series	x	x	-
VO2611 series	x	x	-
VO0600T series	x	-	-
VO0601T series	x	-	-
VO0611T series	x	-	-
VO0630T series	x	-	-
VO0631T series	x	-	-
VO0661T series	x	-	-
VO2630 series	x	-	-
VO2631 series	x	-	-
VO4661 series	x	-	-
VOW137 series	x	-	-
VOW260 series	x	-	-
VOFD341A series	x	x	-
VOFD343A series	x	x	-
6N139 series	x	x	-
SFH6319T series	x	x	-
6N136 series	x	x	-
SFH6326 series	x	x	-
VOM453T series	x	x	-
VOW136 series	x	x	-
VOD3120 series	x	x	-
VOH1016 series	x	x	x