Change of Assembly location: VCNT2020 (Reflective sensor)

For further information, please contact your regional Vishay office.

CONTACT INFORMATION

Americas

VISHAY Intertechnologies, Inc.
2585 Junction Avenue
-
San Jose California United States 95134-1923
Phone: +1-408-567-8358
Fax: +1 408-240-5687
-

Europe

VISHAY Semiconductor GmbH
Theresienstrasse 2
-
Heilbronn Germany 74072
Phone: +49-7131-67-2113
Fax: +49-7131-67-3144
-

Asia

VISHAY Intertechnology Asia Pte. Ltd.
25 Tampines Street 92
Keppel Building # 02-00
Singapore Singapore 528877
Phone: +65-6788-6668
Fax: +65-6788-3383
-

Description of Change: Currently our VCNT2020 is assembled at Krubong Malaysia and this will be transfered to the assembly location in Bankgkok, Thailand.

Classification of Change: Th new location (Bankgkok, Thailand) has been installed with additonal capacity to meet the increasing market demands.

Expected Influence on Quality/Reliability/Performance: No influence on quality and reliability expected. Nevertheless, we recommend to test the product in customers application.

The device from the new location will have some advantages.

Appearance: Notch to identify Pin 1 & Tie-bar design but the package dimensions are exactly the same as our current VCNT2020.

Better performance: Tighter collector current limits to minimize tolerances

More details in the separate slides.

Part Numbers/Series/Families Affected: VCNT2020

Vishay Brand(S): Vishay Semiconductors

Time Schedule:

Start Shipment Date: Sun Jun 4, 2023

Sample Availability: 28-FEB-2023

Product Identification: datecode and special label

Qualification Data: Available upon request

Product Change Notification

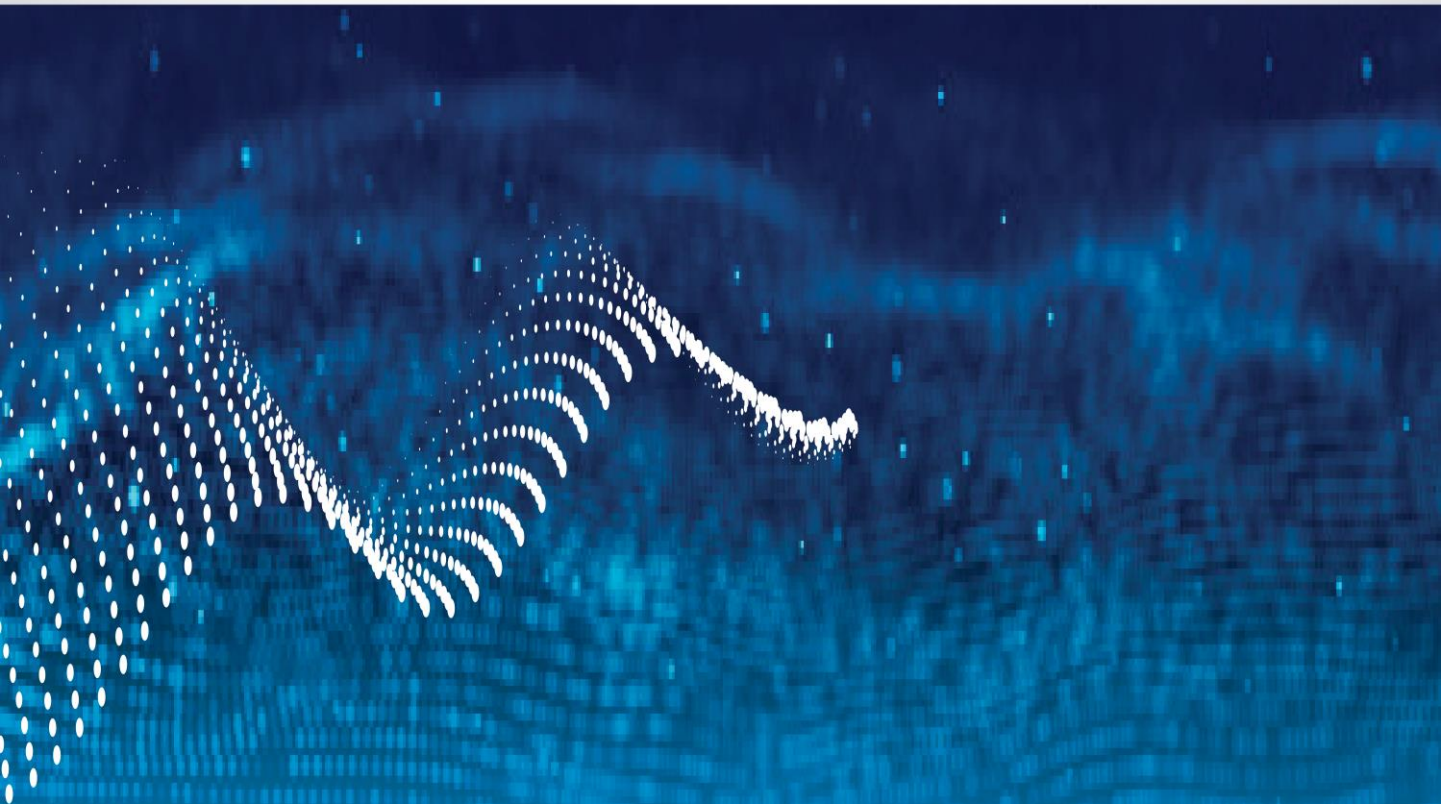
Product Group: OPT/Tue Feb 21, 2023/PCN-OPT-1259-2023-REV-0

This PCN is considered approved, without further notification, unless we receive specific customer concerns before Mon May 15, 2023 or as specified by contract.

Issued By: Mohankumar Kannusamy, mohankumar.kannusamy@vishay.com

VCNT2020 Location Transfer

Changes summary



Change Summary

Before PCN

- Assembly Location: Krubong,Malaysia
- Appearance: No Pin 1 identification available
- Performance: wider collector current limits

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

PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
INPUT (EMITTER)						
Forward voltage	I_F = 20 mA	V_F	-	1.25	1.4	V
	I_F = 100 mA		-	1.5	1.7	
Temperature coefficient of V_F	I_F = 20 mA	TKV_F	-	-1.0	-	mV/K
Peak wavelength	I_F = 100 mA	λ_P	-	940	-	nm
Reverse current	V_R = 5 V	I_R	-	-	10	µA
OUTPUT (DETECTOR)						
Collector emitter breakdown voltage	I_C = 0.1 mA, E = 0	V_{BRCEO}	20	-	-	V
Emitter collector voltage	I_E = 100 µA, E = 0	V_{ECO}	7	-	-	V
Collector emitter dark current	V_{CE} = 5 V, E = 0	I_{CEO}	-	1	100	nA
SENSOR						
Collector current	V_{CE} = 5 V, I_F = 20 mA, d = 1 mm	I_C	0.5	1.0	3.0	mA
Current transfer ratio	I_C/I_F, d = 1 mm, V_{CE} = 5 V	CTR	-	8	-	%
Rise time	I_C = 0.8 mA, V_{CE} = 5 V, R_L = 100 Ω	t_r	-	10	70	µs
Fall time	I_C = 0.8 mA, V_{CE} = 5 V, R_L = 100 Ω	t_f	-	15	70	µs

After PCN

- Assembly Location: Bangkok, Thailand
- Appearance: Notch to identify Pin 1 & Tie-bar but the package dimensions are exactly the same
- Performance:Tighter collector current limits to minimize tolerances

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

PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
INPUT (EMITTER)						
Forward voltage	I_F = 20 mA	V_F	-	1.25	1.4	V
	I_F = 100 mA		-	1.5	1.7	
Temperature coefficient of V_F	I_F = 20 mA	TKV_F	-	-1.0	-	mV/K
Peak wavelength	I_F = 100 mA	λ_P	-	940	-	nm
Reverse current	V_R = 5 V	I_R	-	-	10	µA
OUTPUT (DETECTOR)						
Collector emitter breakdown voltage	I_C = 0.1 mA, E = 0	$V_{(BR)CEO}$	20	-	-	V
Emitter collector voltage	I_E = 100 µA, E = 0	V_{ECO}	7	-	-	V
Collector emitter dark current	V_{CE} = 5 V, E = 0	I_{CEO}	-	1	100	nA
SENSOR						
Collector current	V_{CE} = 5 V, I_F = 20 mA, d = 1 mm	I_C	0.5	1.0	3.0	mA
Current transfer ratio	I_C/I_F, d = 1 mm, V_{CE} = 5 V	CTR	-	8	-	%
Rise time	I_C = 0.8 mA, V_{CE} = 5 V, R_L = 100 Ω	t_r	-	10	70	µs
Fall time	I_C = 0.8 mA, V_{CE} = 5 V, R_L = 100 Ω	t_f	-	15	70	µs

THANK YOU