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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 transferred to the assembly location in Bangkok, Thailand.

Classification of Change: The new location (Bangkok, Thailand) has been installed with additional 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 customer's 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

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

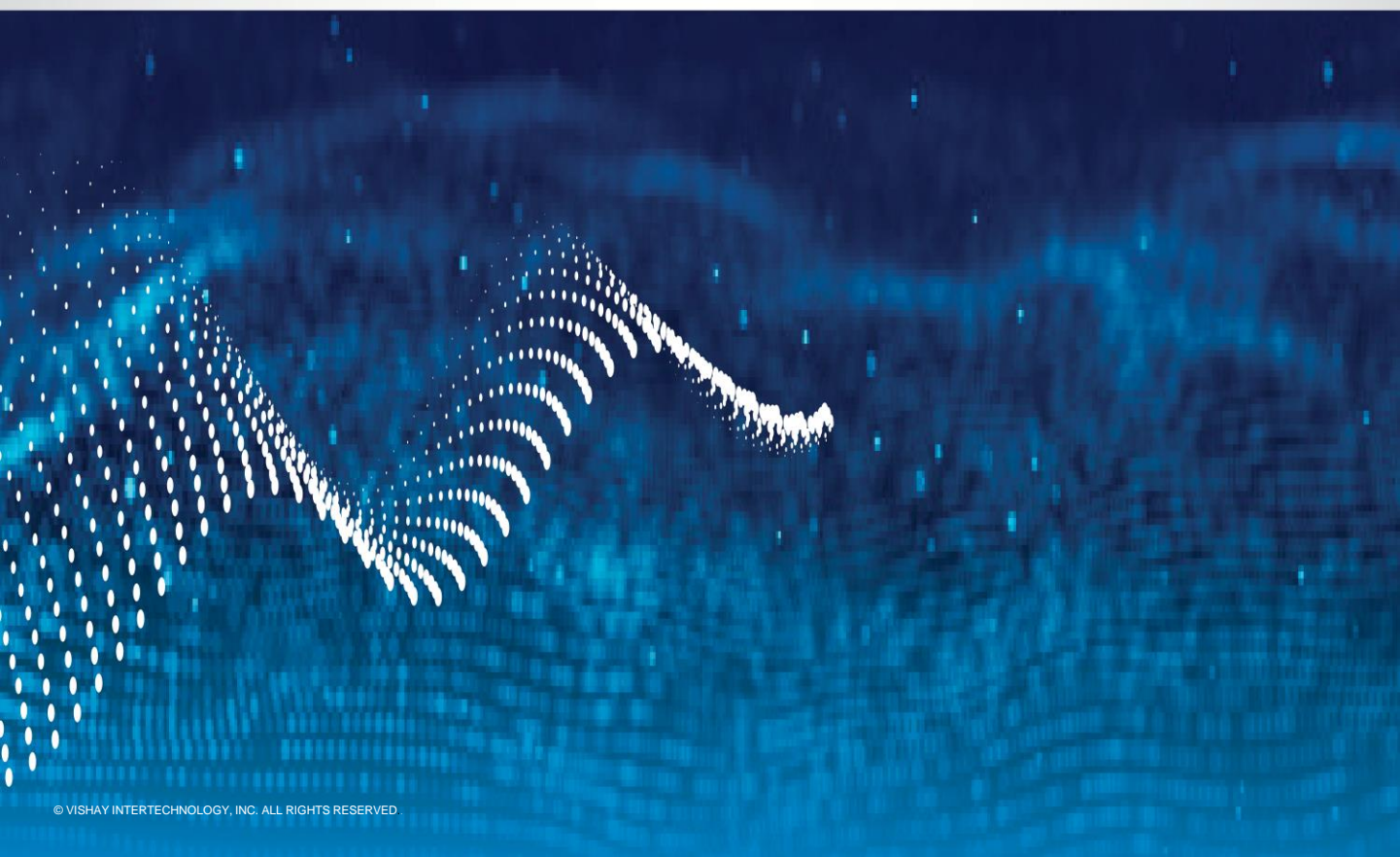
Issued By: Mohankumar Kannusamy, mohankumar.kannusamy@vishay.com



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VCNT2020 Location Transfer

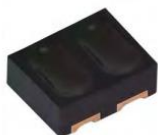
Changes summary



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	V
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 _{CE(sic)}	20	-	-	V
Emitter collector voltage	I _E = 100 μA, E = 0	V _{EC}	7	-	-	V
Collector emitter dark current	V _{CE} = 5 V, E = 0	I _{CO}	-	1	100	nA
SENSOR						
Collector current	V _{CE} = 5 V, I _E = 20 mA, d = 1 mm	I _C	0	15	70	mA
Current transfer ratio	I _C /I _E , 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
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Emitter collector voltage	I _E = 100 μA, E = 0	V _{EC}	7	-	-	V
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Current transfer ratio	I _C /I _E , 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



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THANK YOU