

Notice of Discontinuation

PCN Publish Date: 08/08/2025
EOL No. #: 20250808-01
Change Title: Discontinuation
Products Affected: HGDE / HGDF series as per item list

Description of the Change:
Product Discontinuation of HGDE / HGDF series
New Products HGDL series

Reason for discontinuation:
existing ASIC foundry (ON Semiconductor) requested to discontinue production due to aging facilities
for further details please refer to attached presentation

Deadline for receipt of LTB order: as per attached item list

Last possible delivery of LTB quantity: as per attached item list

Sample Date: as per attached item list

Volume Production: as per attached item list

Contact Information: For any question please contact your Alps Alpine sales representative.

Kind Regards

Alps Alpine Europe GmbH
Sales Department 8
Component Distribution



Magnetic switch output sensor next GEN products 磁気センサー(開閉スイッチ)の次世代製品に関して

- Existing products : HGDE/HGDF series
- New products : HGDL series

2025/08/07

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1-1、製品開発背景/変更箇所

Background of new products development concept

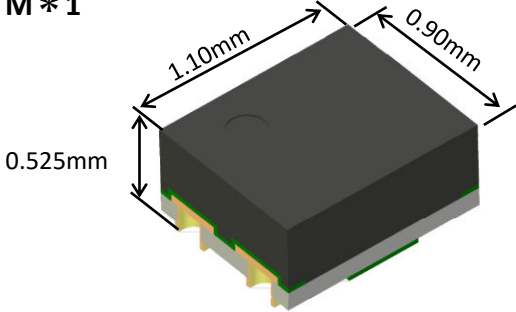
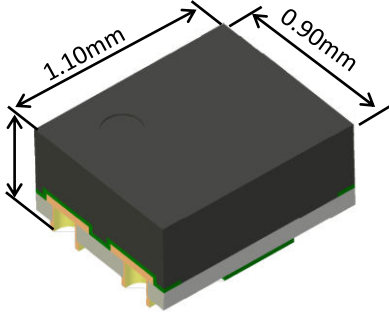
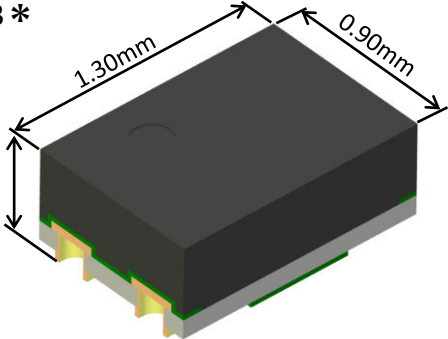
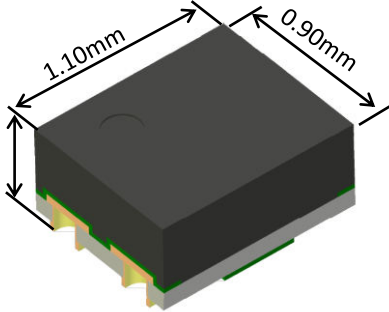
・ 現行品のASICファウンドリー（ON Semiconductor）より設備の老朽化、同ライン使用製品が 弊社 向けのみとなった事より

生産中止申し入れがありファウンドリー(UMC)の切替を行う。

-The existing ASIC foundry (ON Semiconductor) requested to discontinue production due to aging facilities and the fact that the only products using the production line are for only our product, therefore change to new foundry (UMC).

工程 Process	ASIC ファウンドリー ASIC foundry	GMR 素子/ウェハ test GMR element / wafer test	パッケージ組立 & 最終検査 Packaging/assy, EOL
現行製品 Existing products HGDE * M * 1/3 *	オン・セミコンダクター (福島) ON semiconductor (Fukushima)	アルプスアルパイン (新潟) ALPSALPINE (Niigata)	アルス (福島) ARS (Fukushima)
次世代製品 New products HGD L * M * 2 *	UMC (台湾) UMC (Taiwan)	変更無 No change	変更無 No change

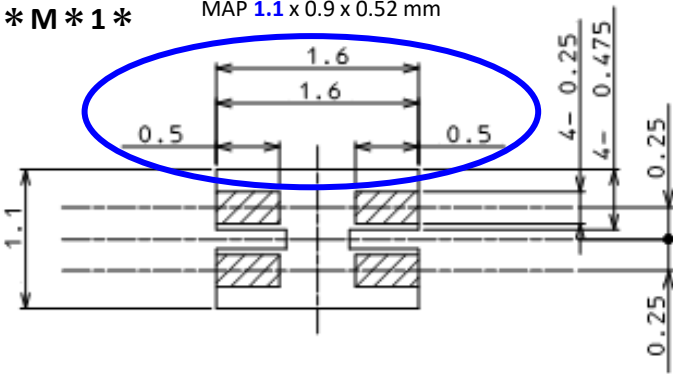
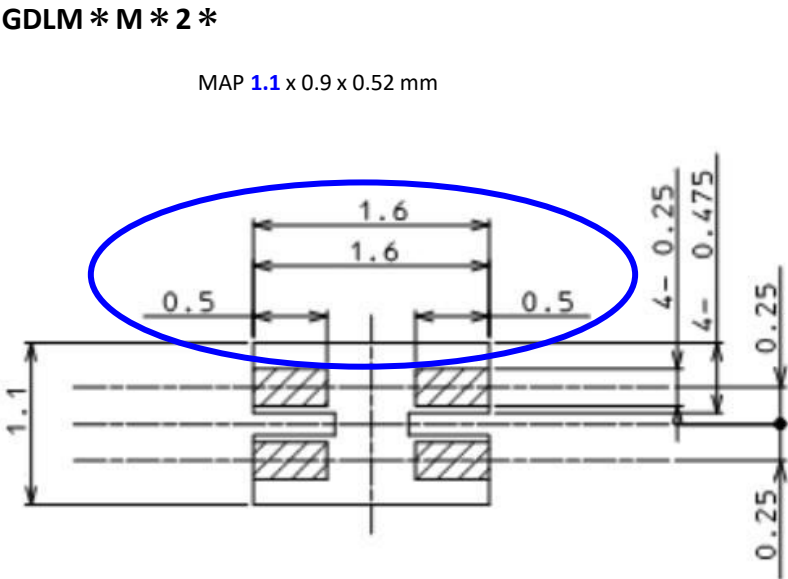
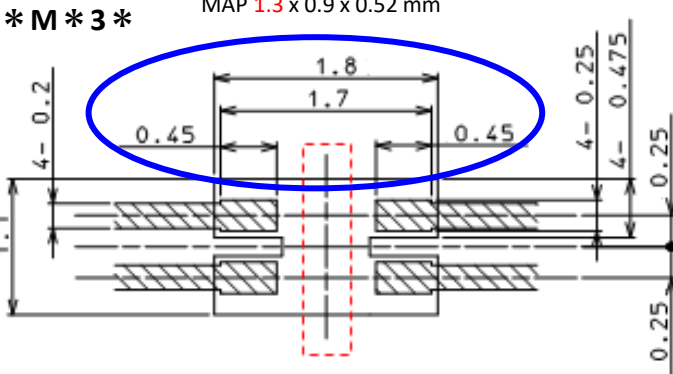
1-2、外形形状/推奨ランド形状 Package size / recommend land dimension

MAP 現行製品 Existing products	MAP 次世代製品 New products
<p data-bbox="112 238 297 265">HGDE * M * 1</p> 	<p data-bbox="962 238 1166 265">HGDLシリーズ</p> <p data-bbox="962 317 1437 345">Unify two sizes of shapes to one size</p> 
<p data-bbox="112 620 324 647">HGDE * M * 3 *</p> 	

➤ SOT23-3pin 仕様は形状変更無/No change of SOT23-3pin

1-2、外形形状/推奨ランド形状

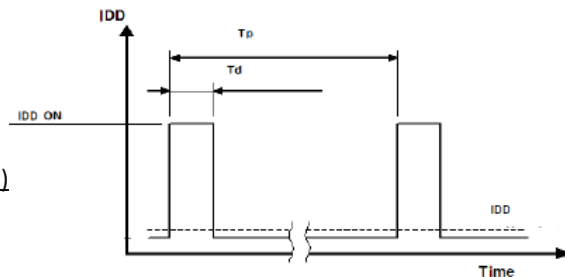
Package size / recommend land dimension

<p>現行製品 Existing product</p>	<p>次世代製品 New product</p>
<p>HGDE * M * 1 * MAP 1.1 x 0.9 x 0.52 mm</p> 	<p>HGDLM * M * 2 *</p> <p>MAP 1.1 x 0.9 x 0.52 mm</p> 
<p>HGDE * M * 3 * MAP 1.3 x 0.9 x 0.52 mm</p> 	

1-3、電気仕様比較(1.8Vタイプ) Electrical specification for 1.8V Typ.

Item 項目	Symbol 記号	Unit 単位	現行製品 HGDE * M * 1or3 *			次世代製品 HGDL * M * * 2 *			Notes 備考
			Min	Typ	Max	Min	Typ	Max	
Supply voltage 電源電圧	VDD	V	1.6	1.8	3.6	1.6	1.8	3.6	
Supply current 電源電流	IDD	μA	-	3.0	5.0	-	3.0	5.0	VDD 1.8V
			-	5.0	9.0	-	5.0	9.0	VDD 3.0V
Dive pulse period パルス駆動周期	Tp	ms	30	50	100	25	50	100	
Pulse width パルス幅	Td	μs	15	25	50	6.1	12.2	24.4	
Operating Temperature Range 動作温度	-	°C	-40	25	85	-40	25	85	
Output voltage 出力電圧	V Hi	V	VDD-0.2	-	-	VDD-0.2	-	-	
	V Low	V	-	-	0.2	-	-	0.2	

Definition of
Drive pulse period (Tp)
& Pulse width (Td)



1-4、動作磁界比較

Operating magnetic field

【動作磁界】

- Hon(+/-), Unit : mT
- Hoff(+/-), Unit : mT

現行製品と次世代製品にて変化は御座いません。

No change between Existing product and New product

Ex). Electrical specification of Operation Magnetic field for 1.8V Typ.

Unit : V

Operation Mag. Field 動作磁界	Existing product 既存製品	New product 次期製品	Symbol 記号	Min. 最小	Typ. 標準	Max. 最大
1.3mT	HGDE * M01 * *	HGDL * M01 * *	Hon(+/-)	0.6	1.3	2.0
			Hoff (+/-)	0.3	0.8	1.5
2.0 mT	HGDE * M02 * *	HGDL * M02 * *	Hon(+/-)	1.3	2.0	2.7
			Hoff (+/-)	0.5	1.2	1.9
3.0 mT	HGDE * M03 * *	HGDL * M03 * *	Hon(+/-)	2.3	3.0	3.7
			Hoff (+/-)	1.5	2.2	2.9

※ Condition : Ta=25°C, VDD=1.8V/3.0V

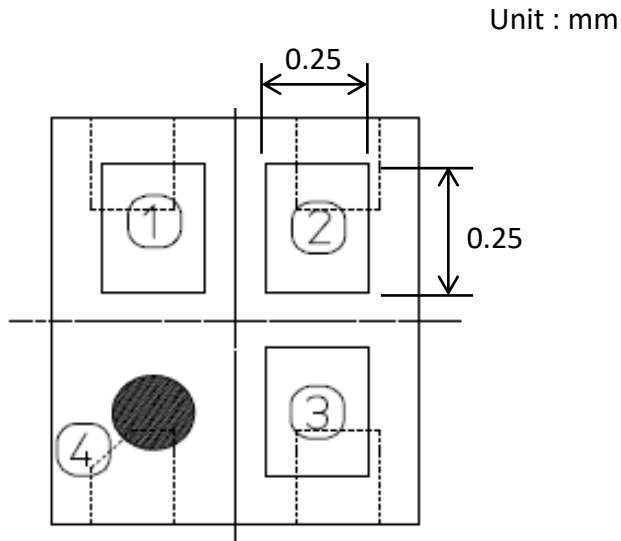
1-5、捺印内容 Marking specification

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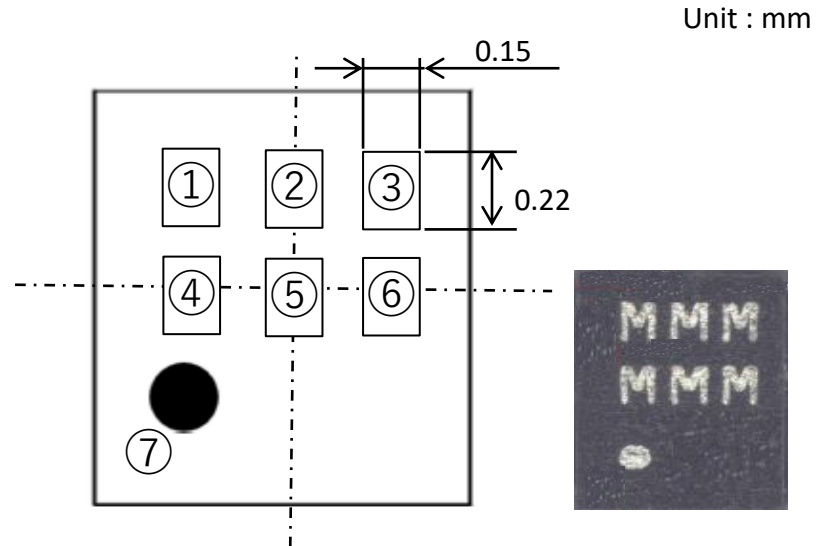
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- Marking Digit number change from 4 digit to 7 digit
捺印桁数を4桁から7桁に変更
- Marking size change
捺印サイズを変更

MAP 現行製品



MAP 次世代製品



* Caution : Marking specification will be shared by Product specification document.
最終的な捺印仕様については納入仕様書へ記載実施。

1-6、推奨リフロープロファイル Recommended Reflow condition

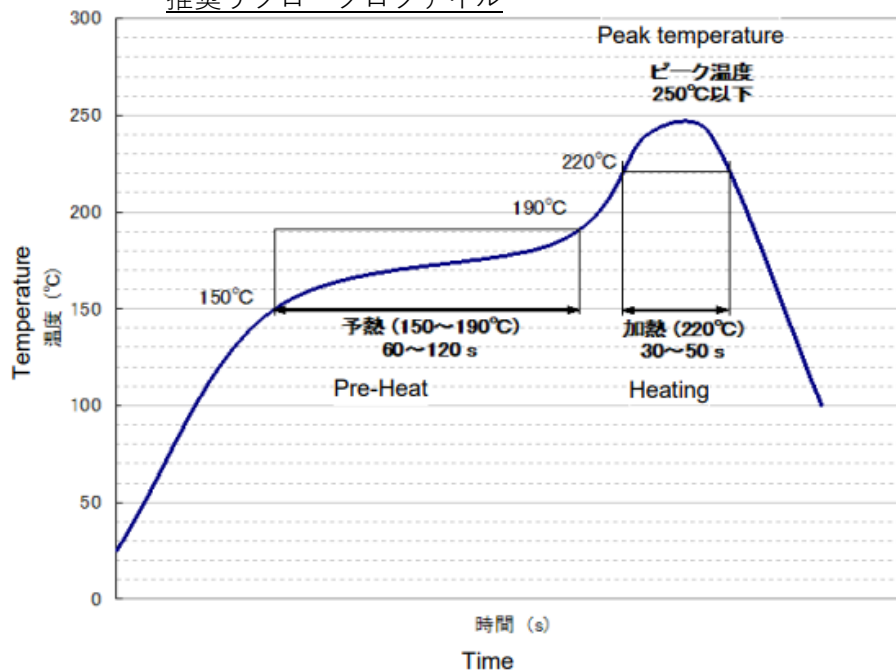
【Soldering condition 半田付け仕様】

・ Reflow condition リフロー条件

No change between Existing product and Alternative

既存製品と代替製品間に変化はありません

Recommended Reflow condition
推奨リフロープロファイル



1-7、信頼性試験結果

Result of Reliability Test

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以下の信頼性試験に合格
Below reliability test are passed

No	試験項目 Items	試験条件 Test condition	結果 Result
1	HTOL	125°C、Vcc=6.0V、1000hr	Pass
2	CLHTOL	125°C、Vcc=6.0V、1000hr (コーナーLot使用/Corner Lot)	Pass
3	LTOL	-40°C、Vcc=6.0V、1000hr	Pass
4	HTS	150°C、1000hr	Pass
5	ELFR	125°C、Vcc=6.0V、168hr	Pass
6	ESD (HBM)	ANSI/ESDA S20.20 2014 JS-001-2017	Pass
7	ESD (CDM)	ANSI/ESDA S20.20 2014 JS-002-2018	Pass
8	Latch up	Only 85°Cのみ、Vcc=5.5V、Idd=100mA (Class2)	Pass
9	Precondition	125°C/24hr⇒85°C85%RH/168hr⇒リフロー3回 Reflow 3 times	Pass
10	TC	-40°C(30min)⇔125°C(30min)、850cyc	Pass
11	u-HAST	130°C、85%RH、96hr	Pass
12	TH	85°C、85%RH、1000hr	Pass
13	HAST	130°C、85%RH、Vcc=5.5V、96hr	Pass
14	THB	85°C、85%RH、Vcc=5.5V、1000hr	Pass

TTI Item List, EOL # 20250808-01

current customer p/n	current Alps Alpine p/n	LTB deadline current p/n	latest requested delivery date current p/n
HGDEPT021B	HGDEPT021B	31.10.2026	31.01.2027
HGDEST021B	HGDEST021B	30.11.2026	31.03.2027
HGDFPT021B	HGDFPT021B	31.10.2026	31.01.2027
HGDEDM013A	HGDEDM013A	* see below	* see below
HGDEPM013A	HGDEPM013A	* see below	* see below
HGDESM013A	HGDESM013A	* see below	* see below
HGDESM023A	HGDESM023A	* see below	* see below
HGDESM033A	HGDESM033A	* see below	* see below
HGDFST021B	HGDFST021B	* see below	* see below

* no business known, LTB and last requested delivery date do not apply, in case of inquiries, please contact

** halogen free

alternative Alps Alpine p/n	Sample Availability alternative part	SOP start alternative part
HGDLPT021A	2026-04	2026-09
HGDLST021A	2026-07	2026-12
HGDLPT022A	2026-02	2026-07
HGDLDM012A **	2026-08	2027-01
HGDLPM012A **	2026-08	2027-01
HGDLSM012A **	2026-08	2027-01
HGDLSM022A **	2026-07	2026-12
HGDLSM032A **	2026-02	2026-06
HGDLPT022A	2026-05	2026-10

t us seperately