EM-1011

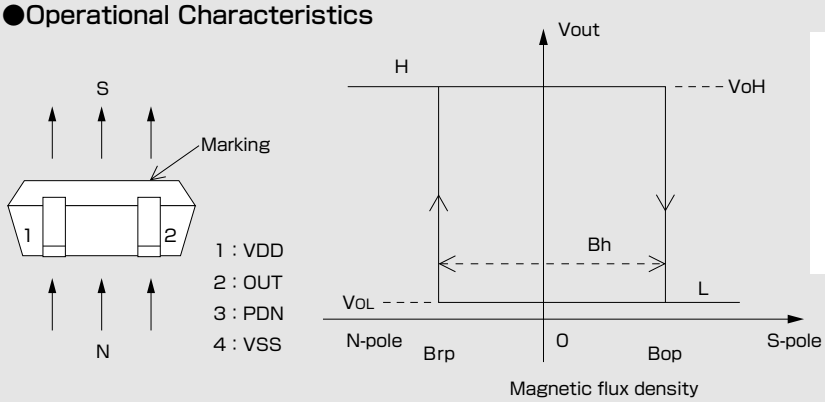
Shipped in packet-tape reel(5000pcs/Reel)

EM-1011 is ultra-small Hall effect ICs of a single silicon chip composed of Hall element and a signal processing IC.

Bipolar Hall Effect Latch	Supply Voltage 3.5～18V	Hall Element Continuous Excitation	High Sensitivity Bop:3mT	Output Open Drain	SMT

Notice:It is requested to read and accept "IMPORTANT NOTICE" written on the back of the front cover of this catalogue.

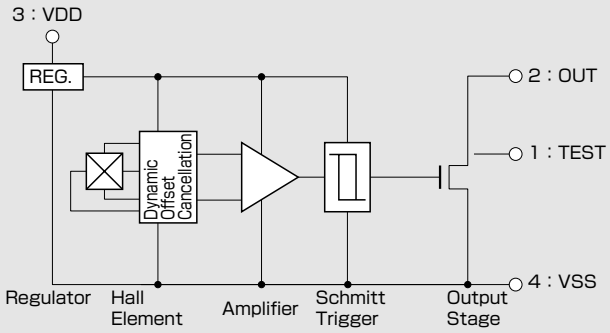
●Operational Characteristics



●Absolute Maximum Ratings (Ta=25℃)

Item	Symbol	Limit	Unit
Supply Voltage	VDD	−0.3 ～25	V
Output Current	I_{sink}	12	mA
Output Supply Voltage	V_{out}	−0.3 ～25	V
Operating Temperature Range	Topr	−30 ～ 115	℃
Storage Temperature Range	Tstg	−40 ～ 125	℃

●Functional Block Diagram

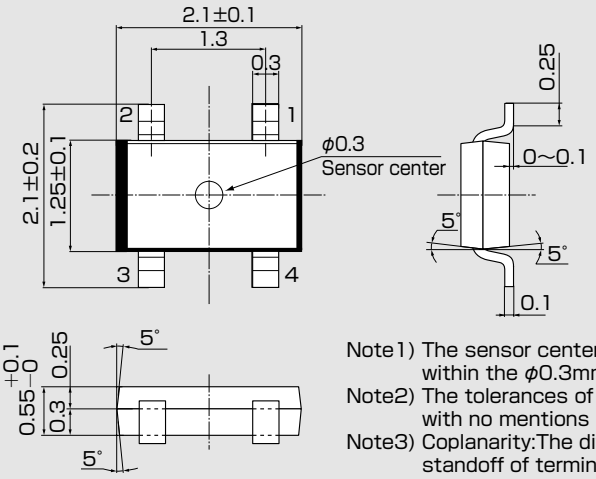


●Magnetic and Electrical Characteristics (Ta=25℃ VDD=12V)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply Voltage	VDD		3.5		18	V
Operating Point	B_{OP}		0.5	3	6	mT
Release Point	B_{rp}		-6	-3	-0.5	mT
Hysteresis	B_h		1	6	12	mT
Output Saturation Voltage	V_{sat}	OUT="L"Isink=10mA		0.2	0.4	V
Output Leakage Current	I_{leal}	OUT="H"			1	μA
Supply Current	IDD	OUT="H"	0.5	3	6	mA

1 [mT] =10 [Gauss]

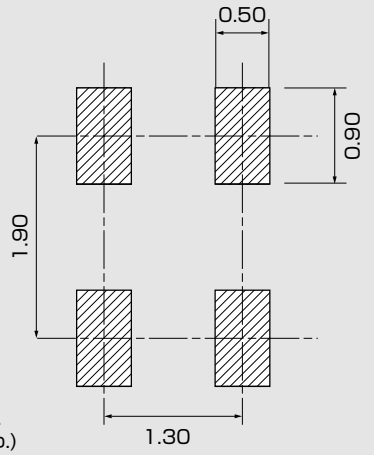
●Package (Unit:mm)



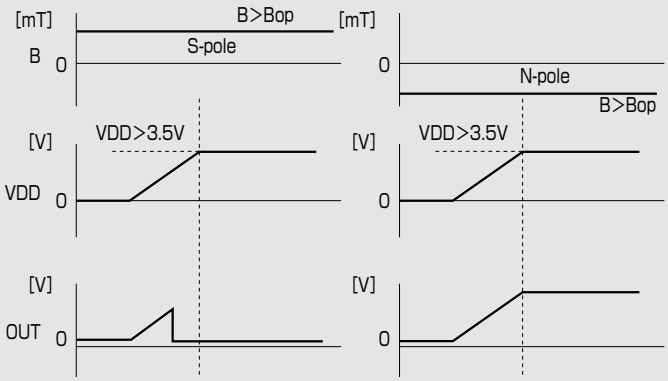
Pin No.	Pin Name	Function	Comment
1	TEST	TEST	N.C
2	OUT	Output Voltage	
3	VDD	Supply Voltage	
4	VSS	GND	

Note1) The sensor center is located within the φ0.3mm circle.
Note2) The tolerances of dimensions with no mentions is ±0.1mm.
Note3) Coplanarity:The differnces between standoff of terminals are max.0.1mm.
Note4) The sensor part is located 0.4mm(typ.) far from marking surface.

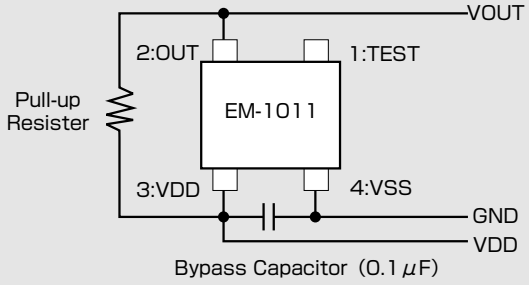
●(For reference only)Land Pattern (Unit:mm)



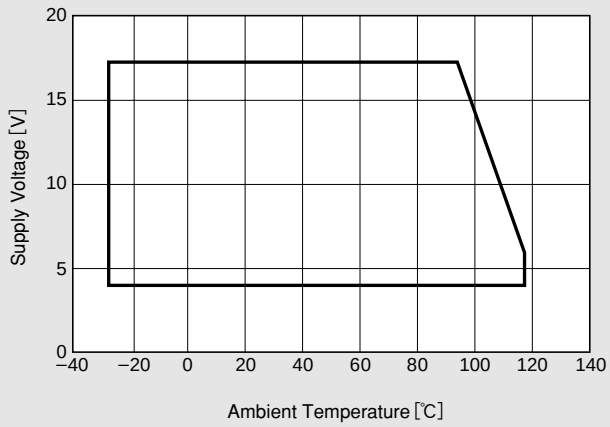
●Output during start-up period



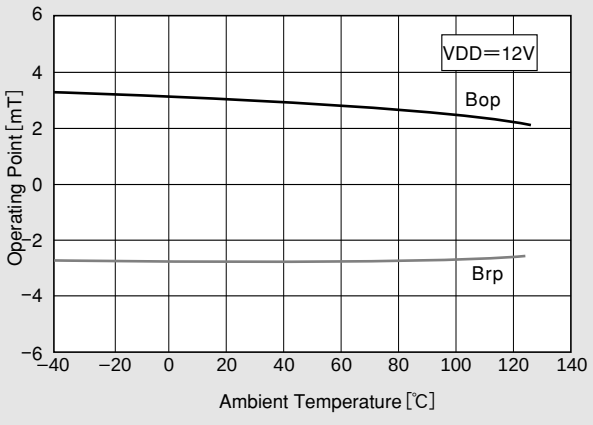
●Application Circuit



●Supply Voltage



●Temparature Dependence of Bop. Brp



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ASAHI KASEI MICRODEVICES CORPORATION

Headquarters
1-105 Kanda,Jinbocho,Chiyoda-ku,Tokyo 101-8101,Japan
TEL：+81-3-3296-3961 FAX：+81-3-3296-3962

Osaka Office
3-23 Nakanoshima 3-Chome, Kita-ku,Osaka 530-8205,Japan
TEL：+81-6-7636-3133 FAX：+81-6-7636-3132
URL http://www.asahi-kasei.co.jp/ake/en/

Europe Office
Market House,19/21 Market Place,Wokingham,Berkshire,RG40 1AP,U.K.
TEL：+44-118-979-5777 FAX：+44-118-979-7885
URL http://www.akm.com/

Shanghai Office
Room2321,Shanghai Central Plaza,381 Huaihai Zhong Road,Shanghai 200020,China
TEL：+86-21-6391-6111 FAX：+86-21-6391-6686
URL http://www.akm.com/

Seoul Office
8th fi.,KTP B/D,27-2 Yoido-dong,Youngdungpo-gu,Seoul 150-742,Korea
TEL：+82-2-3775-0990 FAX：+82-2-3775-1991

AKM Semiconductor,Inc

Western US Sales
1731 Technology Drive Suite 500 San Jose,CA95110,USA
TEL： +1-408-436-8580 FAX：+1-408-436-7591

Eastern US Sales
629 Bamford Road Cherry Hill,NJ 08003,USA
TEL： +1-856-424-7211 FAX：+1-856-424-7344
URL http://www.akm.com/

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