



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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

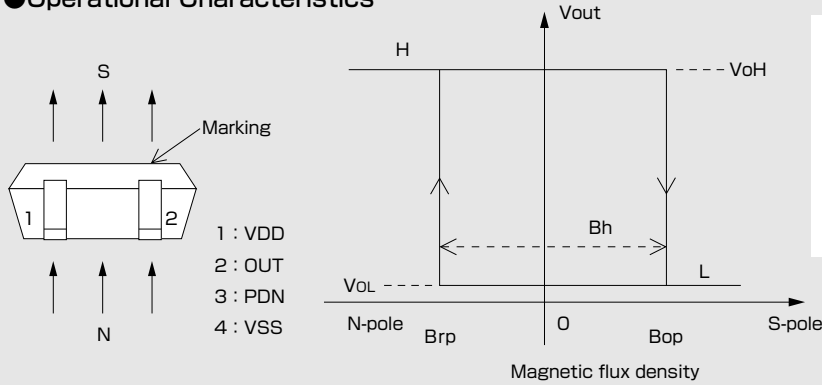
High Sensitivity Bop:3mT

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.

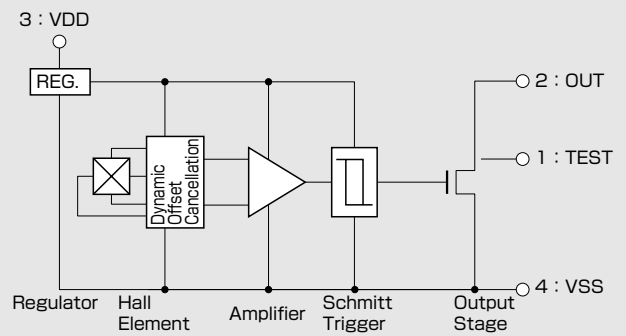
●Operational Characteristics



●Absolute Maximum Ratings (Ta=25°C)

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	°C
Storage Temperature Range	Tstg	-40 ~ 125	°C

●Functional Block Diagram



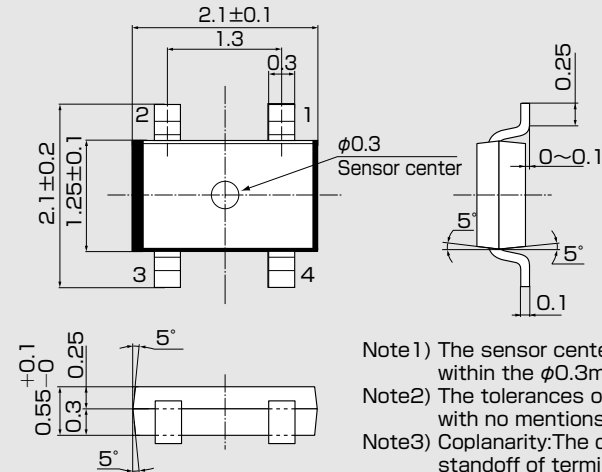
●Magnetic and Electrical Characteristics (Ta=25°C VDD=12V)

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" I _{sink} =10mA		0.2	0.4	V
Output Leakage Current	I _{leak}	OUT="H"			1	μA
Supply Current	I _{DD}	OUT="H"	0.5	3	6	mA

1 [mT] = 10 [Gauss]

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 Certain applications using semiconductor devices may involve potential risks of personal injury, property damage, or loss of life. In order to minimize these risks, adequate design and operating safeguards should be provided by the customer to minimize inherent or procedural hazards. Inclusion of our products in such applications is understood to be fully at the risk of the customer using our devices or systems.

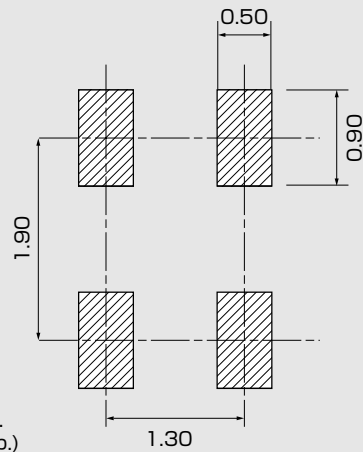
●Package (Unit:mm)



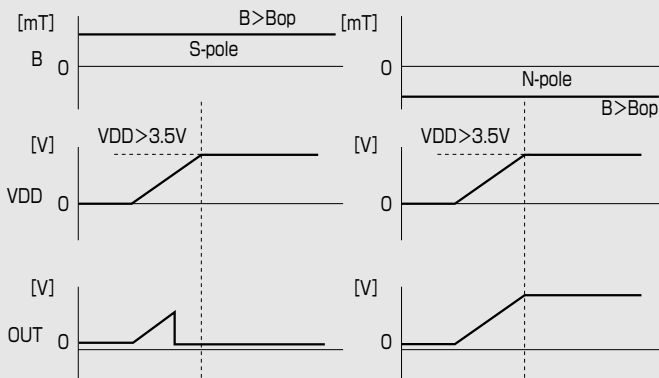
Pin No.	Pin Name	Function	Comment
1	TEST	TEST	N.C
2	OUT	Output Voltage	
3	VDD	Supply Voltage	
4	VSS	GND	

- 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 differences between standoff of terminals are max.0.1mm.
- Note4) The sensor part is located 0.4mm(typ.) far from marking surface.

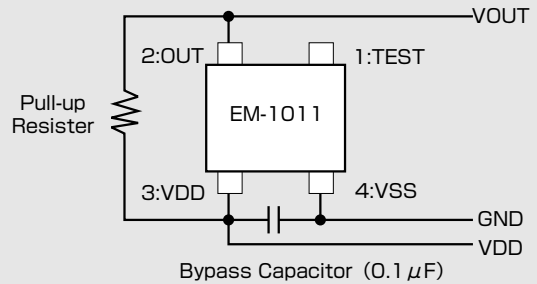
●(For reference only)Land Pattern (Unit:mm)



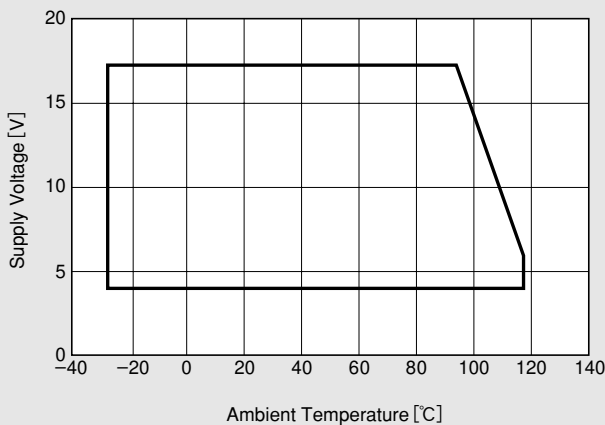
●Output during start-up period



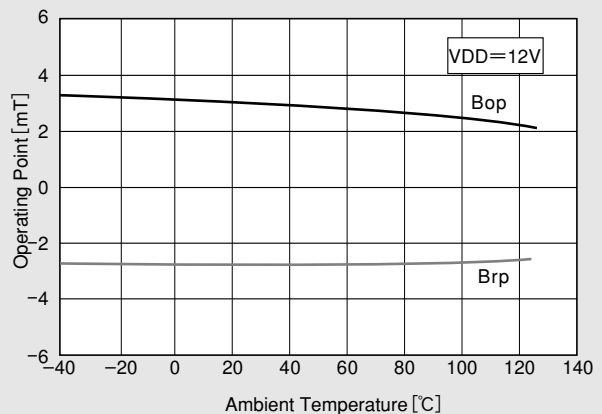
●Application Circuit



●Supply Voltage



●Temperature Dependence of Bop, Brp



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April 4, 2012