

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

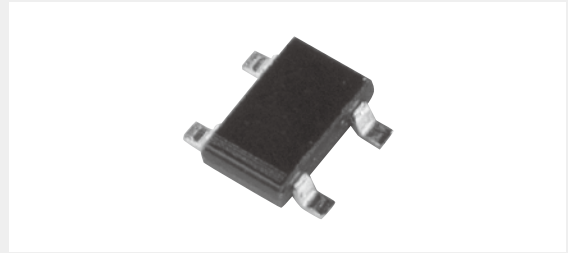
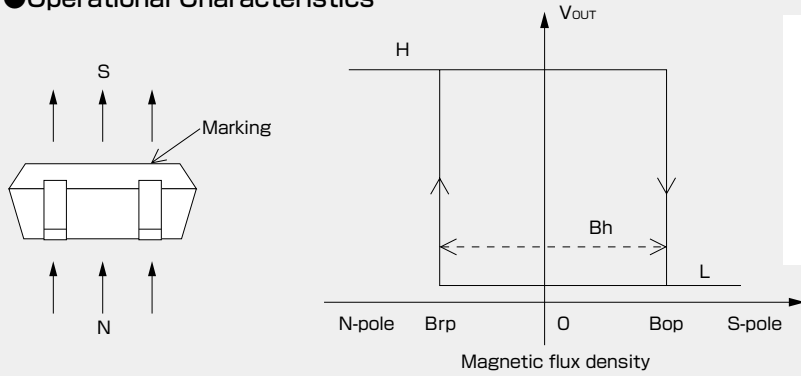
High Sensitivity Bop:3mT

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.

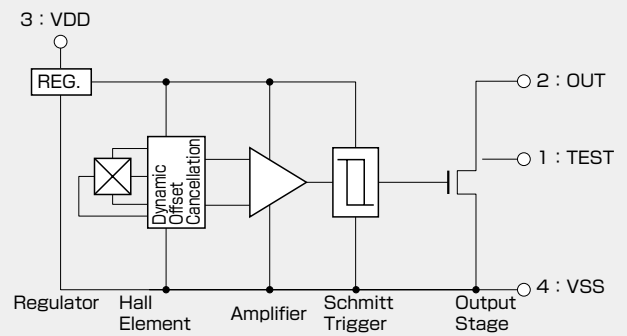
●Operational Characteristics



●Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Min.	Max.	Unit
Supply Voltage	V _{DD}	-0.3	25	V
Output Current	I _{SINK}	0	12	mA
Output Supply Voltage	V _{OUT}	-0.3	25	V
Storage Temperature Range	T _{STG}	-40	+125	°C

●Functional Block Diagram



●Recommended Operating Conditions

Item	Symbol	Min.	Typ.	Max.	Unit
Supply Voltage	V _{DD}	3.5	12	18 ^(*)	V
Operating Temperature Range	T _{opr}	-30	+25	+115	°C

(*) Please refer to Supply Voltage Derating Curve.

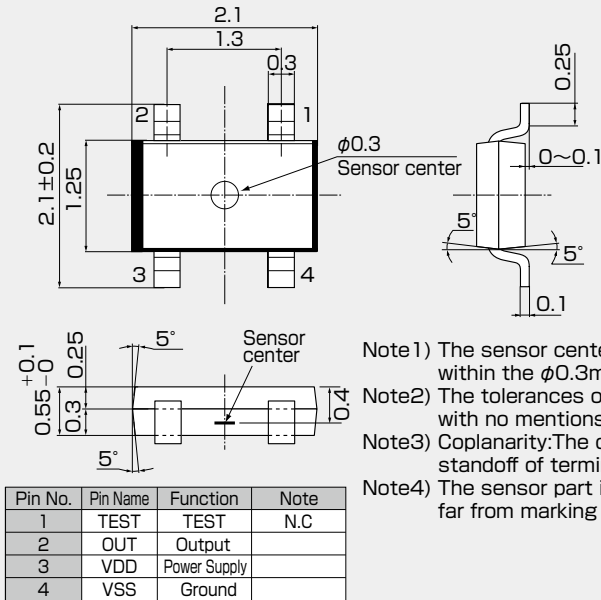
●Magnetic and Electrical Characteristics (Ta=25°C V_{DD}=12V)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Operating Point	B _{op}		0.5	3	6	mT
Releasing 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

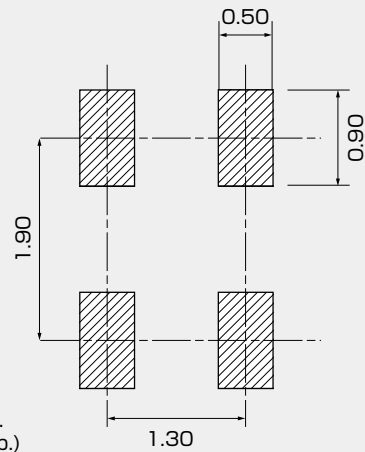
1 [mT] = 10 [Gauss]

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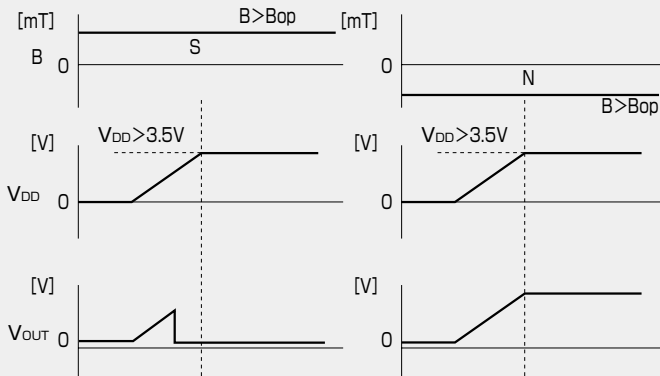
●Package (Unit:mm)



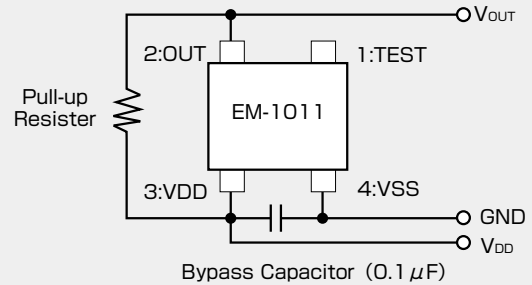
●(For reference only) Land Pattern (Unit:mm)



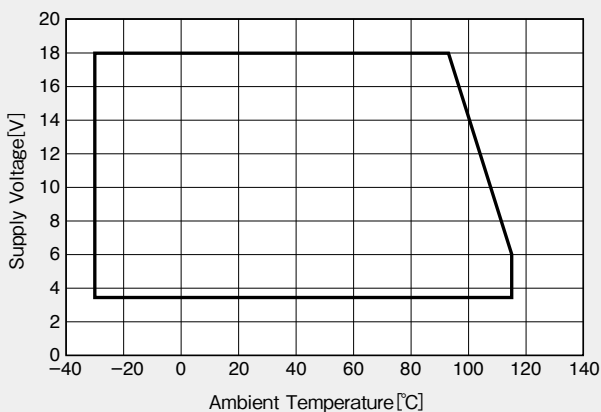
●Output during start-up period



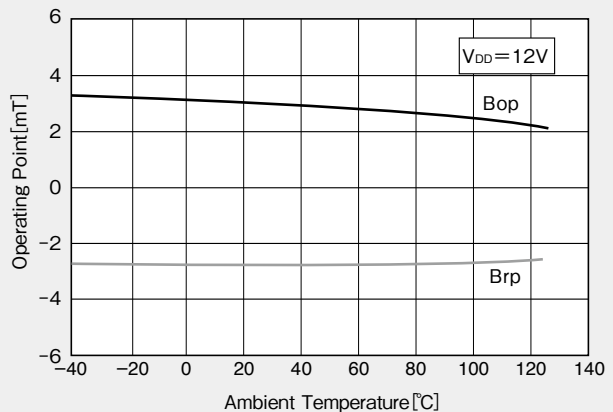
●Application Circuit



●Supply Voltage Derating Curve



●Temperature Dependence of Bop, Brp



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