

HALL EFFECT IC SWITCH

This Hall-effect switch is stress-resistant sensor best utilized in applications that provide steep magnetic slopes and low residual levels of magnetic flux density.

The device includes a voltage regulator, Hall voltage generator, signal amplifier, Schmitt trigger and open-collector output on a single silicon chip. The on-board regulator permits operation with supply voltages of 3.6 to 24 volts. The switch can be used directly with bipolar or MOS logic circuits.

ELECTRICAL AND MAGNETICAL CHARACTERISTICS

@ (Ta=25°C, Vcc=3.6V to 24V)

CHARACTERISTIC	SYBMOL	TEST CONDITIONS	LIMITS			
			MIN	TYP	MAX	UNIT
Supply Voltage	Vcc		3.6	-	24	V
Output Saturation Voltage	Vout	Iout=5mA, B>Bop	-	-	400	mV
Output Leakage Current	Ioff	Vout=24V, B<Brp	-	1	10	μA
Supply Current	Icc	Vcc=3.6V, Output Open	-		9	mA
Output Rise Time	tr	Vcc=12V, RL=1.1K, CL=20uF	-	0.04	-	μS
Output Fall Time	tf	Vcc=12V, RL=1.1K, CL=20uF	-	0.04	-	μS
Operate Point	Bop	0°C<Ta<+70°C, Ta=25°C	-	-	15	mT
Release Point	Brp	0°C<Ta<+70°C, Ta=25°C	-15	-	-	mT
Hysteresis	Bhys	0°C<Ta<+70°C, Ta=25°C	2	-	-	mT

Features

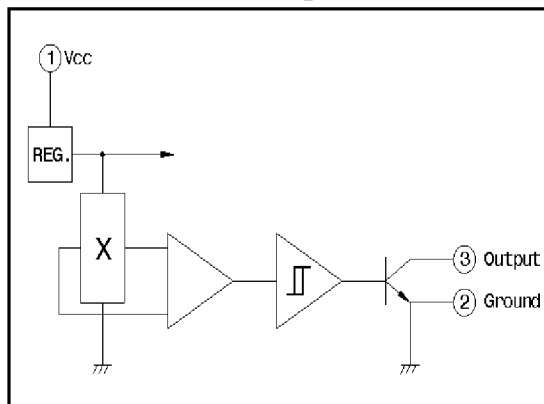
3.6V to 24V Operation

Activate with small, commercially available permanent magnets.

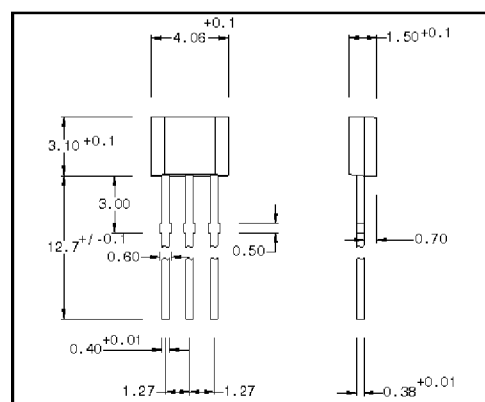
Solid-state reliability ... No moving parts small size

Resistant to physical stress

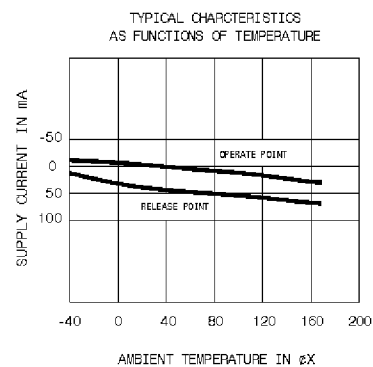
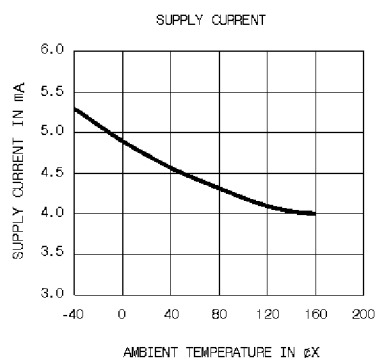
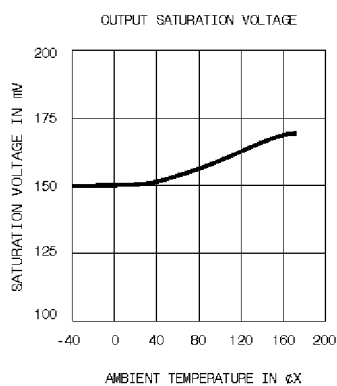
Functional Block Diagram



Case Drawing



Typical characteristics as functions of temperature



MICRO ELECTRONICS LTD.

38, Hung To Road, Microtron Building, Kwun Tong, Kowloon, Hong Kong.

Kwun Tong P.O. Box 69477 Hong Kong. Fax No. 2341 0321 Telex:43510 Micro Hx. Tel: 2343 0181-5

Dec-98