LT280A

GaAs Hall IC for Noncontact Switch
(Unidirectional magnetic field-type)

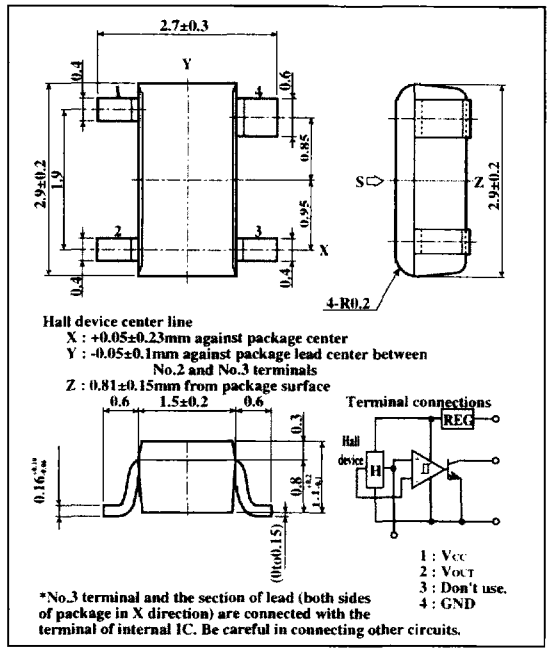
■ Features

- Suitable for portable equipment due to 3V operation
- Operation by small magnet due to high sensitivity Operating point<30mT
- Combining a GaAs Hall device and an IC in a compact package (2.9X1.5X1.1mm)
- Wide operation temperature range obtained by GaAs Hall device (-20 to +125°C)
- Long life time due to noncontact-type

■ Applications

- FDD
- HDD
- Water meter
- Car stereo
- Microswitch, etc.

■ Outline Dimensions (Unit :mm)



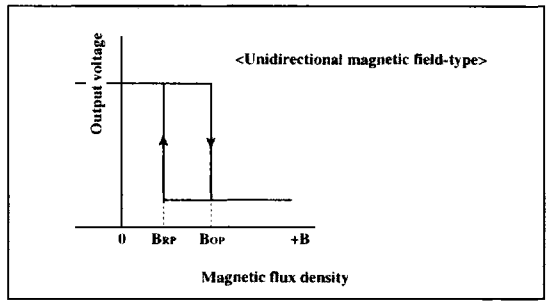
As for dimensions of tape-packaged products, refer to page 44 .

■ Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Supply voltage	Vcc	6.5	V
Output voltage	Vout	6.5	V
Output current	Io	5	mA
Power dissipation	PD	100	mW
Operating temperature	Topr	-20 to +125	°C
Storage temperature	Tstg	-55 to +150	°C
Soldering temperature*1	Tsol	260	°C

*1 Soldering time : within 10 seconds

■ Operating Explanation



■ Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	MIN.	TYP.	MAX.	Unit
Operating magnetic flux density	BOP	Vcc=3V	11.0	-	30.0	mT
	BRP	VOO=3V	10.0	-	29.0	mT
Hysteresis breadth	BH	RL=4.7kΩ	1.0	-	6.0	mT
Operating voltage	Vcc		2.7	-	6.0	V
Supply current	Icc	Vcc=3V, B=<10mT	-	3.5	7.0	mA
Low level output voltage	VOL	Io=4mA, B>=30mT	-	-	0.4	V
Output leakage current	IOH	Vcc=3V, VOO=3V, B=<10mT	-	-	10	μA
Operating point temperature drift	ΔBOP	Vcc=3V, Ta=-20°C to +80°C	-	2.5	8.0	mT

Fig. 1 Operating Magnetic Flux Density vs. Supply Voltage

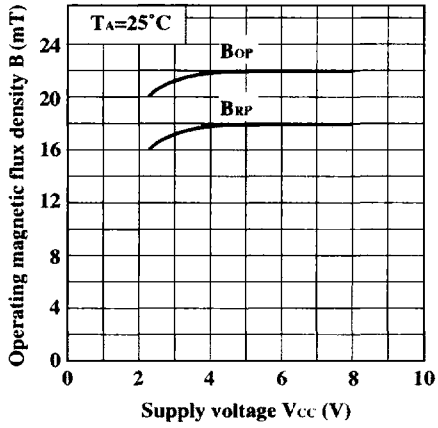


Fig. 2 Operating Magnetic Flux Density vs. Ambient Temperature

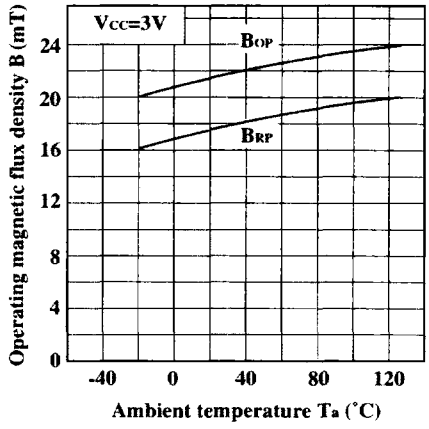


Fig. 3 Supply Current vs. Supply Voltage

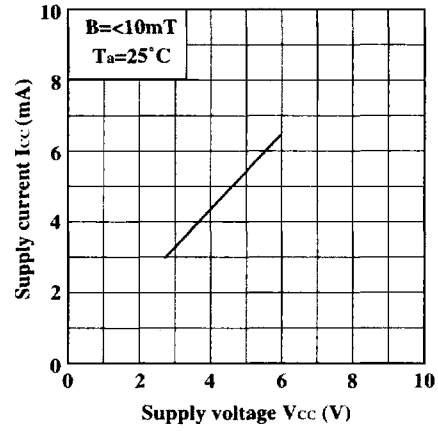


Fig. 4 Supply Current vs. Ambient Temperature

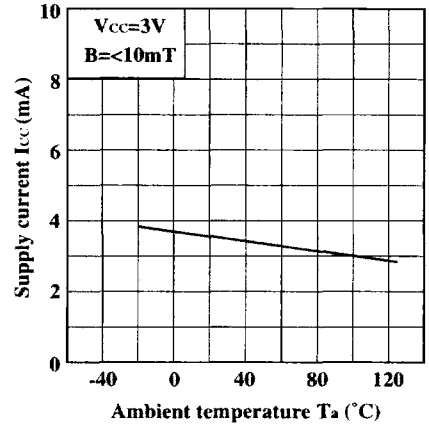


Fig. 5 Low Level Output Voltage vs. Output Current

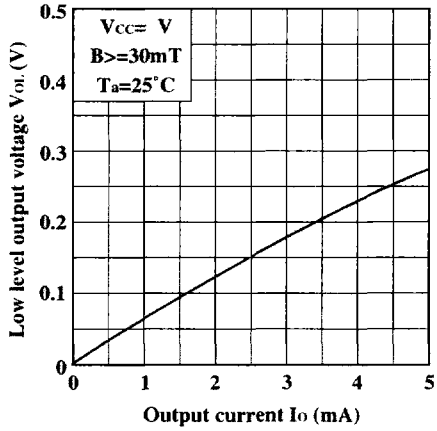


Fig. 6 Low Level Output Voltage vs. Ambient Temperature