LT261A

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

* Zero-cross is not warranted,

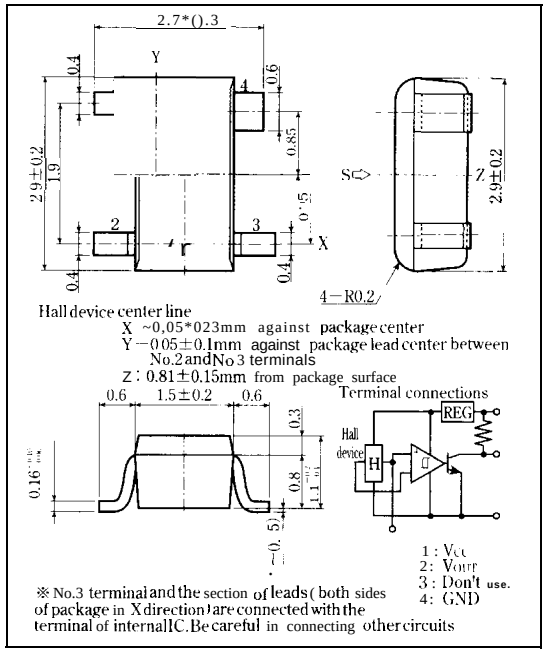
■ Features

. **operation** by small magnet due to high sensitivity
Operating point < 10mT
- Combining a GaAs Hall device and an IC in a compact package (2.9 X 1.5 X 1.1mm)
. Wide operation temperature range obtained by GaAs Hall device (-20 to +125℃)
- Long life time due to noncontact-type

■ Applications

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

■ Outline Dimensions (Unit : mm)



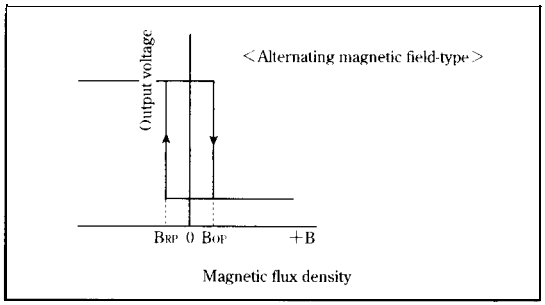
As for dimensions of tape-packaged products, refer to page 44

■ Absolute Maximum Ratings (T_a=25℃)

Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	18	v
output voltage	V_{OUT}	18	v
output current	10	5	mA
Power dissipation	P_D	100	mw
operating temperature	T_{opr}	−20 to +125	℃
Storage temperature	T_{stg}	−55 to +150	℃
Soldering temperature※1	T_{sol}	260	℃

※1 Soldering time within 10 seconds

■ Operating Explanation



■ Electrical Characteristics (T_a=25℃)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Operating magnetic flux density	B_{OP}	V_{CC} = 16V, V_{OO}=16V		−	10	mT
	B_{RP}		−Io	−		mT
Hysteresis breadth	B_H		−	−	5	mT
Operating voltage	V_{CC}		4.5	−	16	v
Supply current	I_{CC}	V_{CC}=16V, B≦−10mT		−	10.5	mA
Low level output voltage	V_{OL}	V_{CC}=16V, I_O=4mA, B≧10mT	−		0.4	V
High level output voltage	V_{OH}	V_{CC}=16V, I_O=−100 μA, B≦−10mT	13.9		−	V
Output short circuit current	I_{OS}	V_{CC}=16V	−1.55	−	−0.80	mA
Operating point temperature drift	$\triangle B_{OP}$	V_{CC}=16V, T_a=−20℃ to +80℃	− 6	−	6	mT

Fig. 1 Operating Magnetic Flux Density vs. Supply Voltage

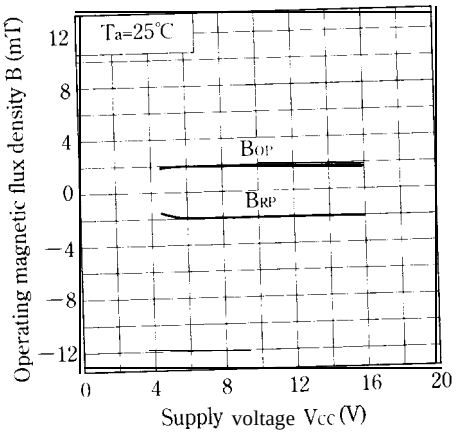


Fig. 2 Operating Magnetic Flux Density vs. Ambient Temperature

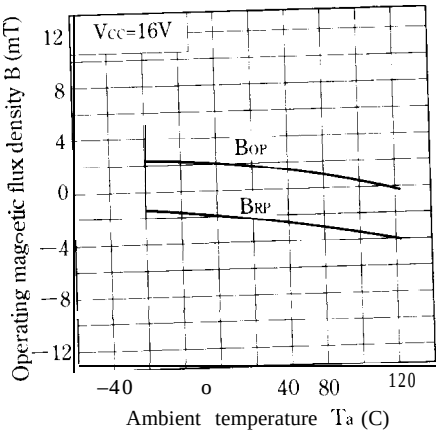


Fig. 3 Supply Current vs. Supply Voltage

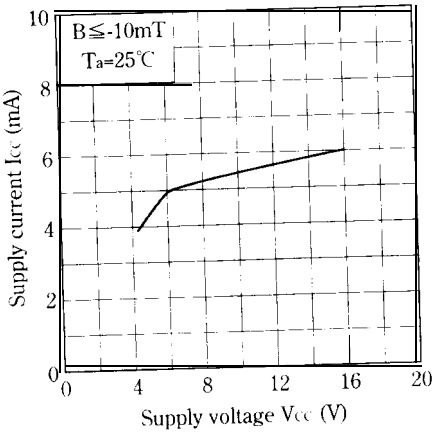


Fig. 4 Supply Current vs. Ambient Temperature

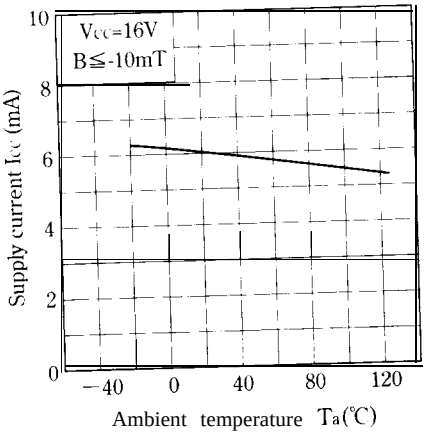


Fig. 5 Low Level Output Voltage vs. Output Current

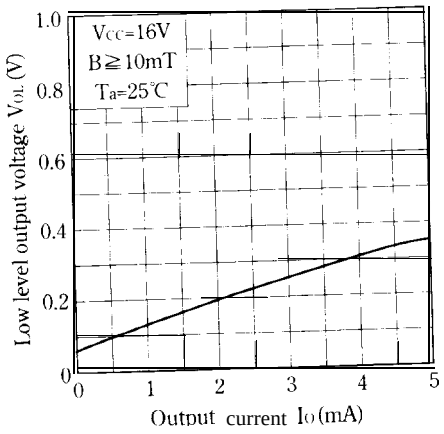


Fig. 6 Low Level Output Voltage vs. Ambient Temperature