

产品信息:

型号	工作温度	工作电压	输出电流	封装	备注
SH3144E	-40~150□	3.8-28V	40mA	TO-92S/SOT23	

产品概述:

SH3144E 霍尔开关集成电路应用霍尔效应原理, 采用半导体集成技术制造的磁敏电路, 它是由电压调整器、霍尔电压发生器、差分放大器、史密特触发器, 温度补偿电路和集电极开路的输出级组成的磁敏传感电路, 其输入为磁感应强度, 输出是一个数字电压讯号。

产品特点: 一致性好、稳定性能稳定、可靠性高、响应速度快, 可和各种逻辑电路直接接口

可实现功能: 无触点开关、位置/速度检测与控制、流量检测

典型应用领域: 纺织机械、缝纫设备、家用电器、安全报警装置、汽车电子、直流无刷电机

极限参数: ($T_A=25^{\circ}\text{C}$)

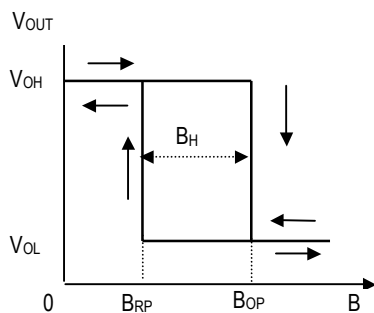
电源电压 V_{CC} 3.8-28V

输出负载电流 I_O 40mA

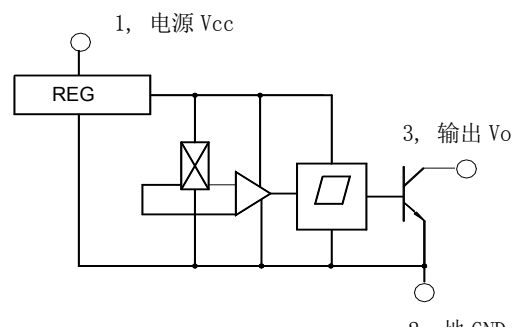
贮存温度范围 T_S -65~150°C

工作温度范围 T_A -40~150°C

磁电转换特性图:



功能方框图:



电特性: $T_A=25^{\circ}\text{C}$

参 数	符号	测试条件	量 值			单位
			最小	典型	最大	
电源电压	V_{CC}		3.8	-	28	V
输出低电平电压	V_{OL}	$I_{out}=25\text{mA}, B>B_{OP}$	-	175	400	mV
输出漏电流	I_{OH}	$V_{out}=24\text{V}, B<B_{RP}$	-	<1.0	10	μA
电源电流	I_{CC}	$V_{CC}=24\text{V}$ 输出端开路	-	5	-	mA
输出上升时间	t_r	$V_{CC}=12\text{V}, R_L=820\ \Omega, C_L=20\text{pF}$	-	0.2	2.0	μS
输出下降时间	t_f	$V_{CC}=12\text{V}, R_L=820\ \Omega, C_L=20\text{pF}$	-	0.18	2.0	μS

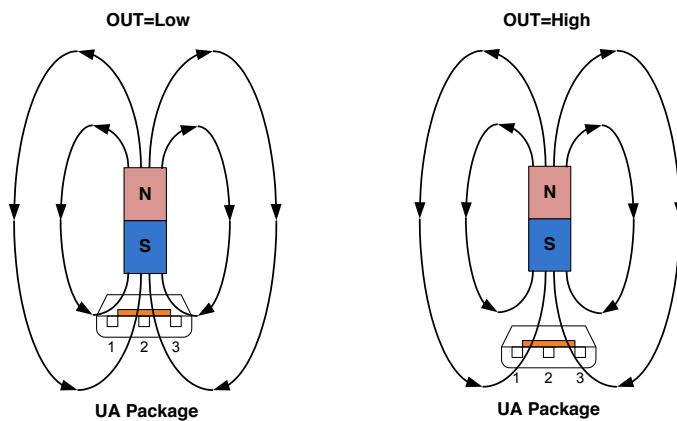
磁特性: ($V_{CC}=3.8\sim 30\text{V}$) $1\text{mT}=10\text{GS}$

参 数	符号	量 值			单 位
		最小	典型	最大	
工作点	B_{OP}	-	140	220	Gauss
释放点	B_{RP}	30	100	-	Gauss
回 差	B_H		40		Gauss

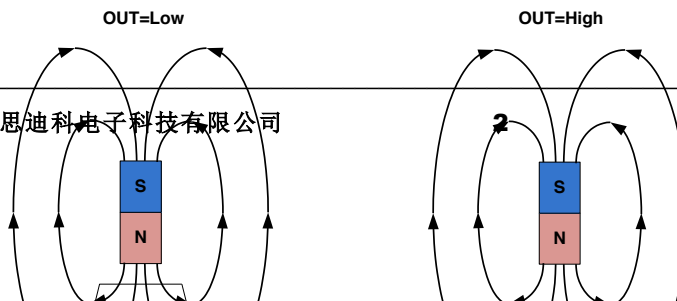
Field Direction Definition

A positive magnetic field is defined as a south pole near the marked side of the package.

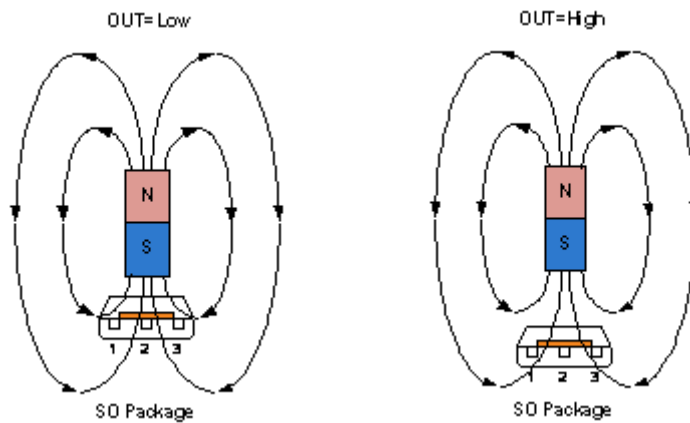
TO-92S Package



SOT23-3 Package



SOT23 Package

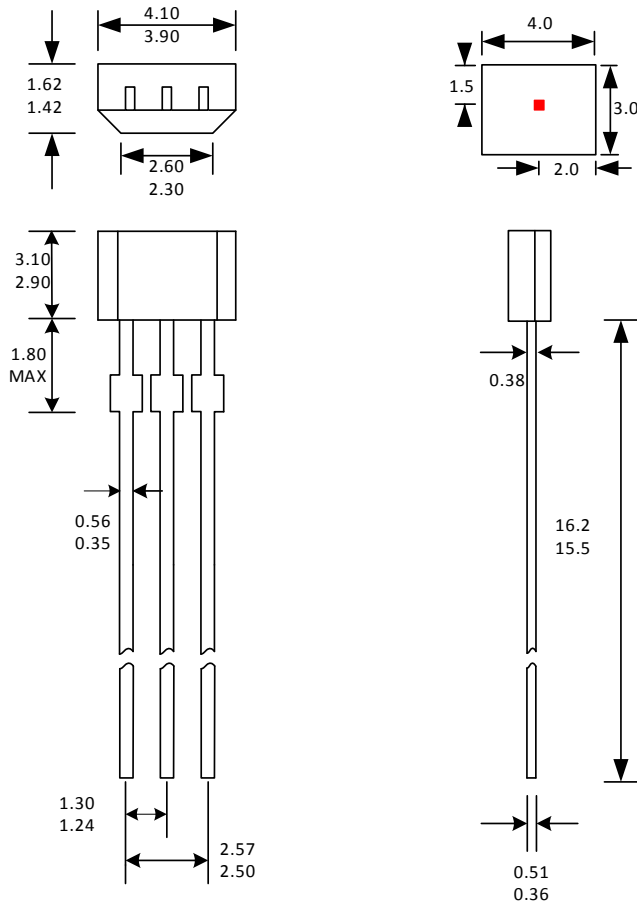


If the device is powered on with a magnetic field strength between B_{RP} and B_{OP} , then the device output is determinate High. For UA package, if the field strength is greater than B_{OP} , then the output is pulled low. If the field strength is less than B_{RP} , the output is released. For SO package, however, if the field strength is less than B_{OP} , then the output is pulled low. If the field strength is greater than B_{RP} , the output is released.

Package Designator (TO-92S)

3-Terminal
UA Package

Dimension:mm



Notes:

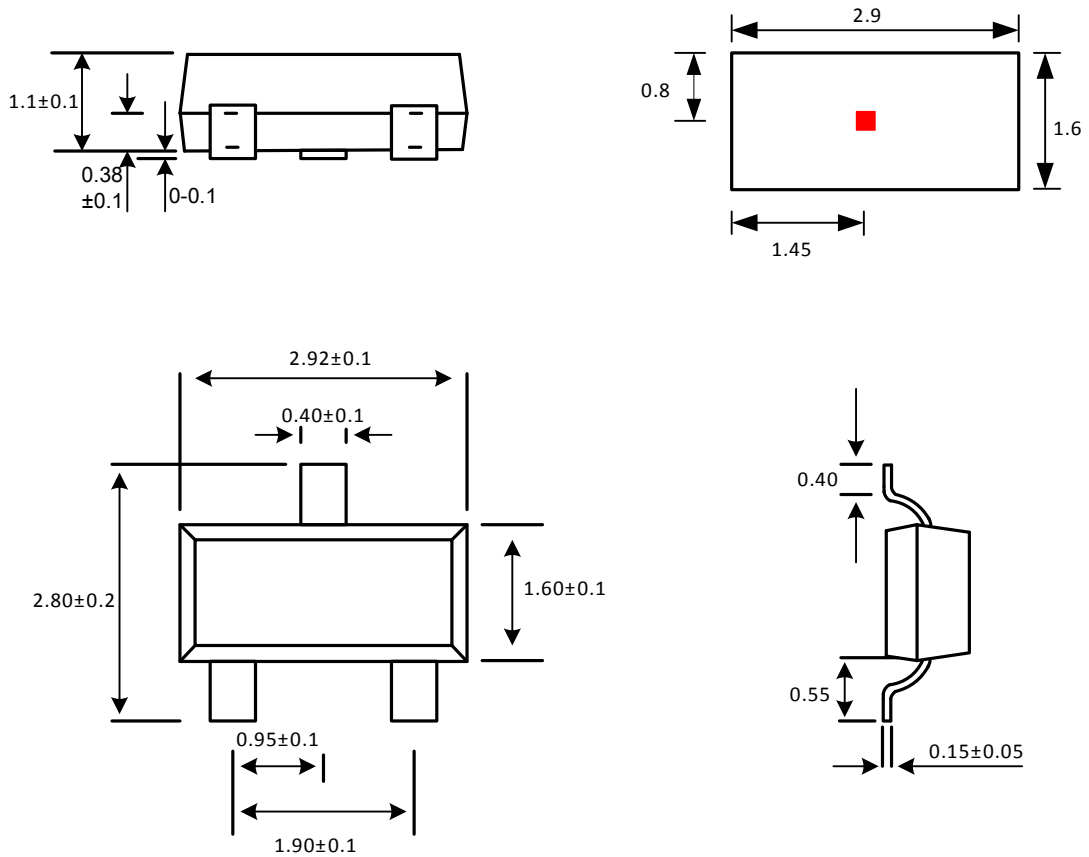
1. Exact body and lead configuration at vendor's option within limits shown.
2. Height does not include mold gate flash.

Where no tolerance is specified, dimension is nominal.

Package Designator (SOT23-3)

3-Terminal SO Package

Dimension:mm



Notes:

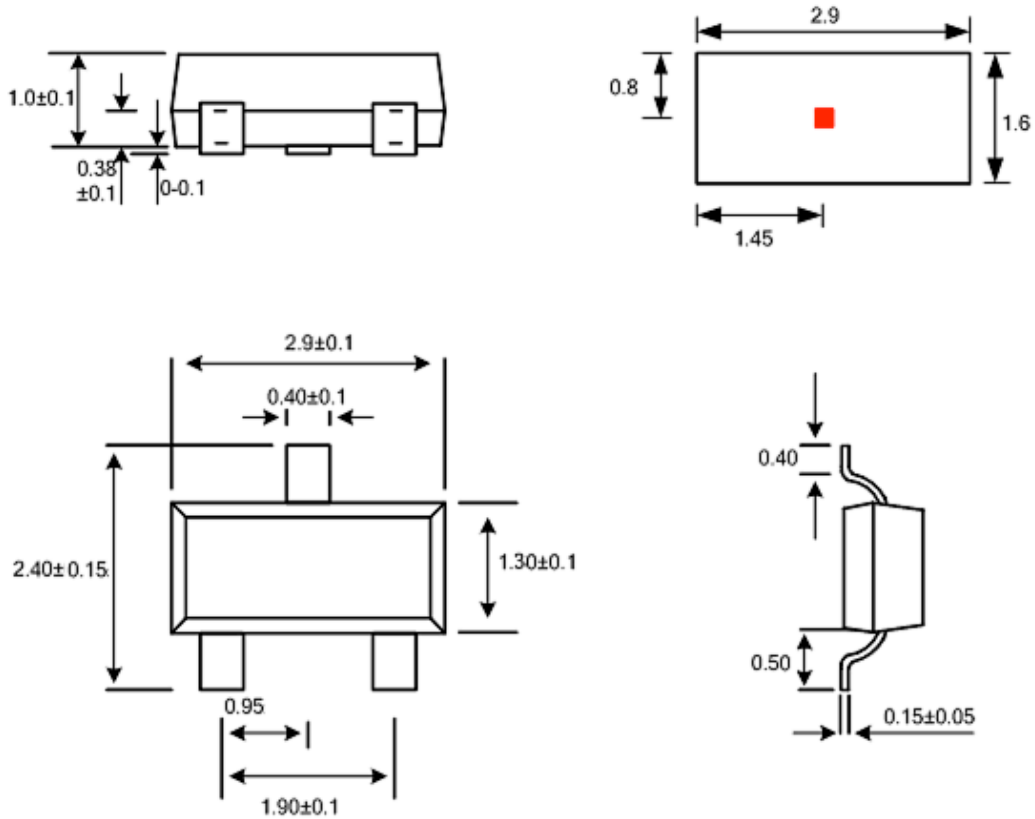
1. Exact body and lead configuration at vendor's option within limits shown.
2. Height does not include mold gate flash.

Where no tolerance is specified, dimension is nominal.

Package Designator (SOT23)

3-Terminal SO Package

Dimension:mm



Notes:

1. Exact body and lead configuration at vendor's option within limits shown.
2. Height does not include mold gate flash.

Where no tolerance is specified, dimension is nominal.