

- High-sensitivity Hall element.
- SIP package, can be surface mounted.
- Shipped in bulk (500pcs per pack).

Item	Symbol		Limit	Unit
Max. Input Current	I_c	Const. Current Drive	20	mA
Operating Temp. Range	$T_{opr.}$		-40 to +110	°C
Storage Temp. Range	$T_{stg.}$		-40 to +125	°C

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Output Hall Voltage	V_H	Const. Voltage Drive B=50mT, $V_C=IV$	168		320	mV
Input Resistance	R_{in}	B=0mT, $I_C=0.1mA$	240		550	Ω
Output Resistance	R_{out}	B=0mT, $I_C=0.1mA$	240		550	Ω
Offset Voltage	V_{OS}	B=0mT, $V_C=IV$	-7		+7	mV
Temp. Coefficient of V_H	αV_H	B=50mT, $I_C=5mA$		-1.8		%/°C
Temp. Coefficient of R_{in}	αR_{in}	B=0mT, $I_C=0.1mA$		-1.8		%/°C
Dielectric Strength		100V D.C	1.0			M Ω

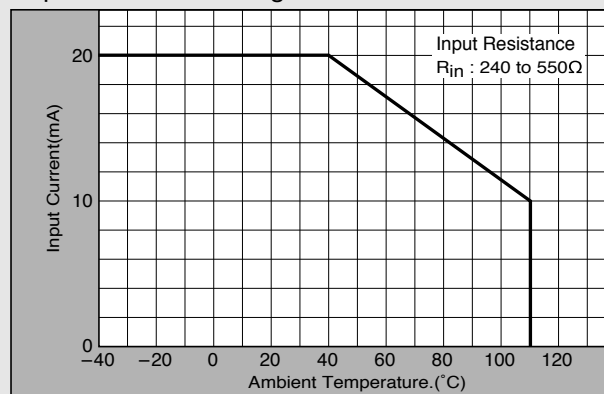
$$2. \alpha V_H = \frac{1}{V_H(T_1)} \times \frac{V_H(T_3) - V_H(T_2)}{(T_3 - T_2)} \times 100$$

$$3. \alpha R_{in} = \frac{1}{R_{in}(T_1)} \times \frac{R_{in}(T_3) - R_{in}(T_2)}{(T_3 - T_2)} \times 100$$

$$T_1 = 20^\circ\text{C}, T_2 = 0^\circ\text{C}, T_3 = 40^\circ\text{C}$$


Rank	V_H [mV]	Conditions
C	168 to 204	B=50mT, V_C =1V Constant Voltage Drive
D	196 to 236	
E	228 to 274	
F	266 to 320	

- Input Current Derating Curve



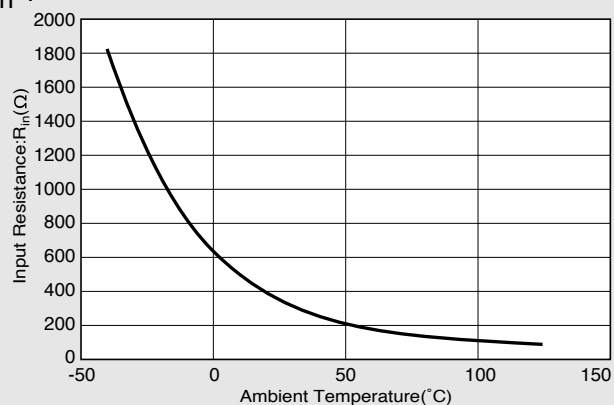
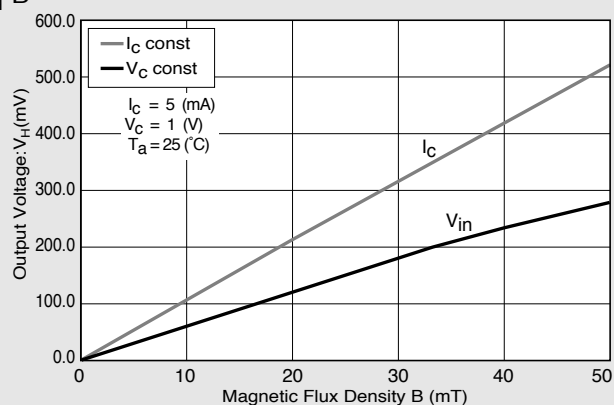
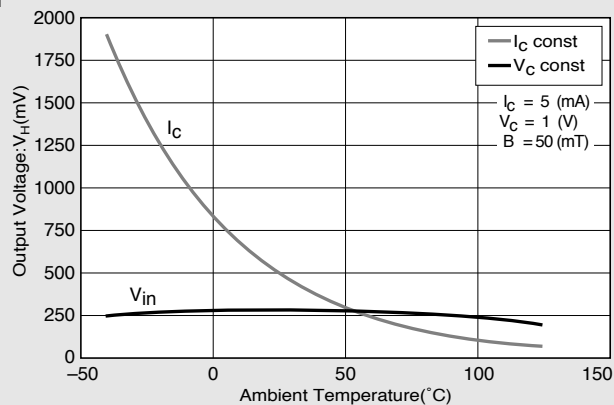
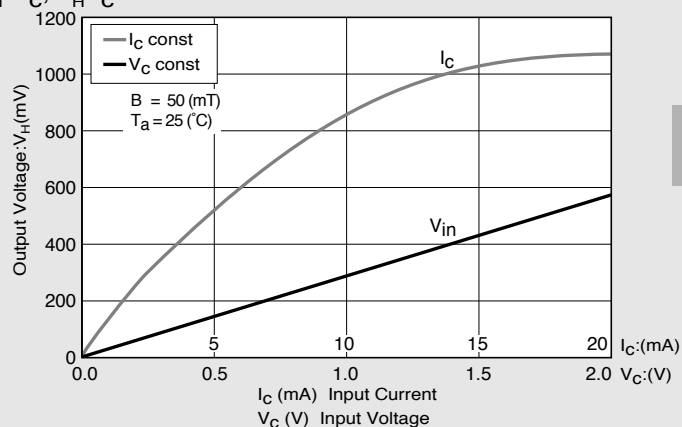
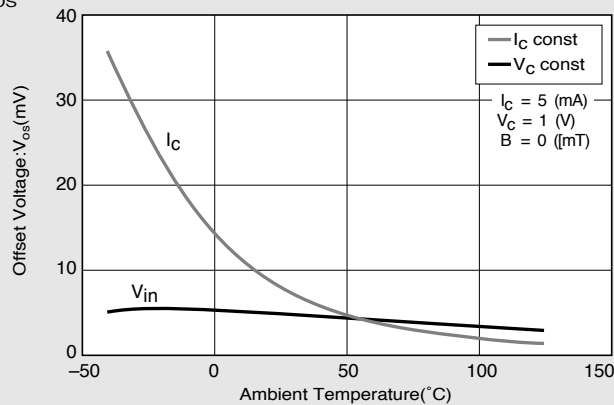
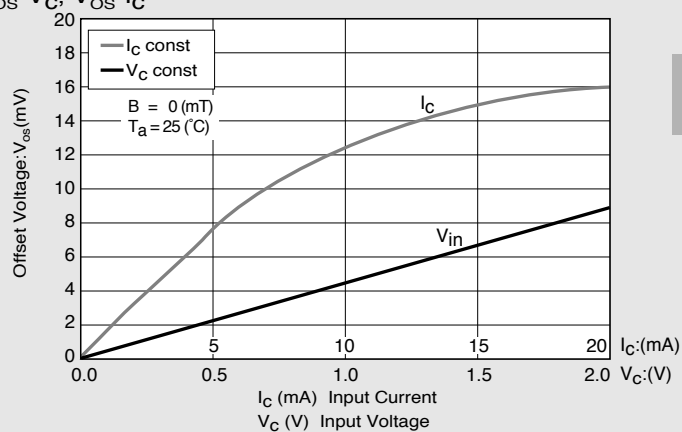
Note : R_{in} of Hall element decreases rapidly as ambient temperature increases. Ensure compliance with input current derating curve envelope, throughout the operating temperature range.

Input Resistance
 $R_{in} : 240 \text{ to } 550\Omega$

Ambient Temperature (°C)	Input Voltage (V)
-40	2.0
0	2.0
20	2.0
40	2.0
60	1.6
80	1.2
100	0.8
110	0.9
120	0.0

Note : For constant-voltage drive, stay within this input voltage derating curve envelope.

•Characteristic Curves

 $R_{in}-T$  V_H-B  V_H-T  V_H-V_C, V_H-I_C  $V_{OS}-T$  $V_{OS}-V_C, V_{OS}-I_C$ 

*Magnetic Flux Density
1 (mT)=10 (G)

In This Example : $R_{in}=350(\Omega)$, $V_{OS}=4.7(\text{mV})$, $V_C=1(\text{V})$