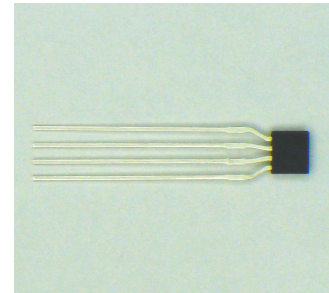


BG-357



- 高稳定性 砷化镓 霍尔元件 / High-stability GaAs Hall Element
- 超薄型SIP封装 / Thin-type SIP package
- 以包装袋形式散装出厂（每袋500个元件） / Shipped in bulk by pack (500pcs devices pack)

1. 极限值 / Absolute Maximum Limit

项目 / Item	符号 / Symbol	极限值 / Limit	单位 / Unit
最大输入电流 / Max. Input Current	Ic max	10	mA
25 定电流驱动 / Constant Current Drive			
功耗 Power Dissipation	Pd	150	mW
动作温度范围 / Operating Temp. Range	Topr	-55 ~ +125	
保存温度范围 / Storage Temp. Range	Tstg	-55 ~ +150	

2. 电气特性 (测定温度 25°C) / Electrical Characteristics(Ta=25°C)

项目 / Item	符号 / Symbol	测定条件 / Condition	最小 / Min.	标准 / Typ.	最大 / Max.	单位 / Unit
霍尔输出电压 Output Hall Voltage	VH	定电流驱动 B=1000G, Ic=5mA	55		140	mV
输入阻抗 Input Resistance	Rin	B=0G, Ic=5mA	450		900	ohm
输出阻抗 Output Resistance	Rout	B=0G, Ic=5mA	580		1350	ohm
不平衡电压率 Residual Voltage Ratio	Vu/VH	B=0G / B=1000G, Ic=5mA	-10		+10	%
输出电压的温度系数 Temp. quotiety of VH	αVH	T1=25 , T2=125 B=1000G, Ic=5mA			-0.06	%/
输出电压的线性 Linearity	αKH	B1=1000G, B2=5000G, Ic=5mA			2	%
比感度 Specific Sensitivity	K*	Ic=5mA , B=1000G		27		X10 ⁻² /T

Note:

1. $V_H = V_{HM} - V_u$:

V_{HM} 是在1000G下的霍尔输出电压实测值 / V_{HM} is the measurement data of output hall voltage at 1000G.

V_u : 不平衡电压 / Residual Voltage

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

$T_1 = 25$, $T_2 = 125$

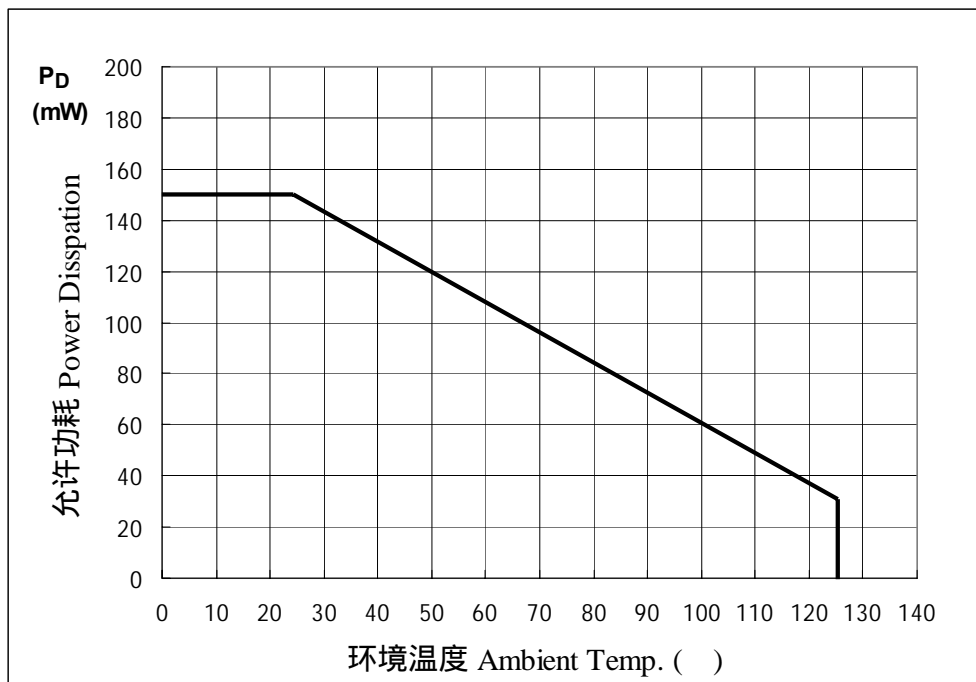
$$3. \alpha KH = \frac{KH(B_2) - KH(B_1)}{1/2\{KH(B_1) + KH(B_2)\}} \times 100 (\%)$$

$$KH = \frac{V_H}{I_c \times B}$$

KH: Product Sensitivity

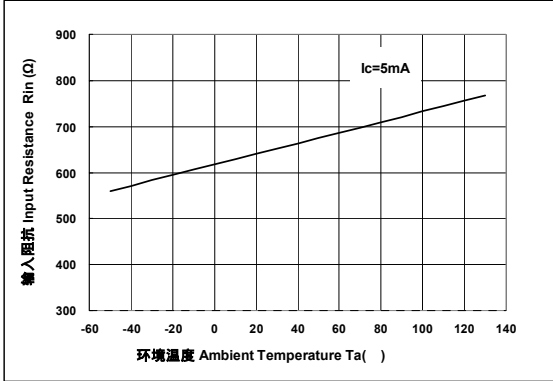
$$4. K^* = V_H / (R_d \times I_c \times B) = KH / R_d$$

3. 最大允许功耗 / Power Dissipation Derating Curve

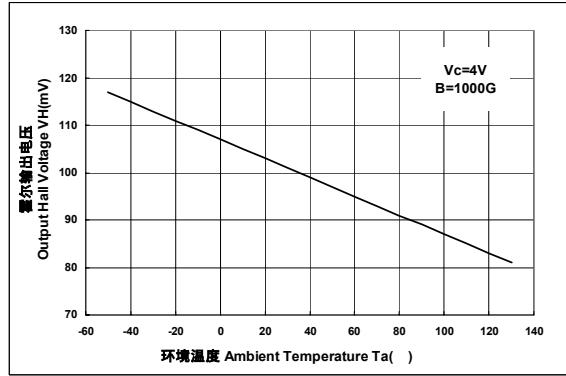


4. 特性曲线 / Characteristic Curves (供参考 / For Reference)

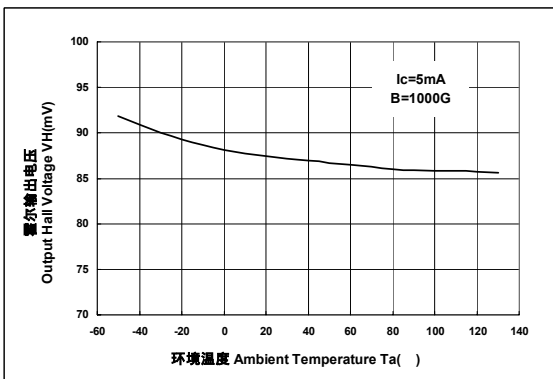
输入阻抗-温度 Rin-T



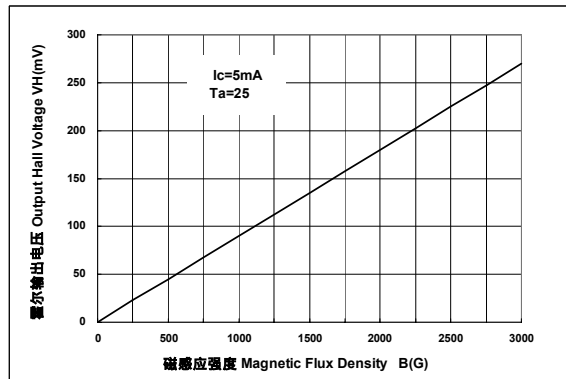
霍尔输出电压-温度 VH-T (恒压 CONSTANT VOLTAGE)



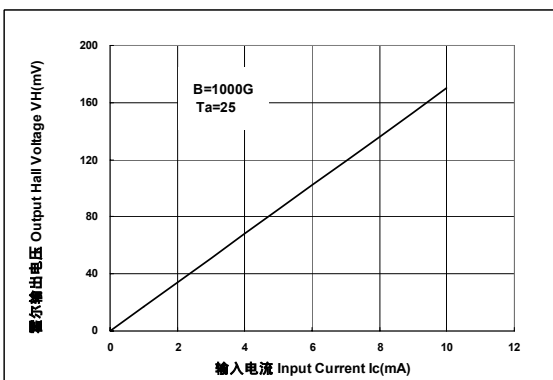
霍尔输出电压-温度 VH-T (恒流 CONSTANT CURRENT)



霍尔输出电压-磁感应强度 VH-B



霍尔输出电压-输入电流 VH-Ic



输出阻抗-温度 Rout-T

