

HQ-0221

Shipped in packet-tape reel(5,000pcs per reel)

Notice : It is requested to read and accept "IMPORTANT NOTICE" written on the back of the front cover of this catalogue.

●Absolute Maximum Ratings

Item	Symbol	Limit	Unit
Max. Input Voltage	V_C	6	V
Max.Input Current	I_C	17	mA
Operating Temp. Range	Topr.	-40 ~ +125	°C
Storage Temp. Range	Tstg.	-40 ~ +150	°C

●Electrical Characteristics($T_a=25^\circ\text{C}$)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Output Hall Voltage	$V_{H(i)}$ ^{※2}	B=50mT, $V_C=3\text{V}$	90		130	mV
Relative Output Voltage Ratio	V_{Hr} ^{※3}	B=50mT, $V_C=3\text{V}$	95		105	%
Input Resistance	R_{in}	B=0mT, $I_C=0.1\text{mA}$	370		570	Ω
Output Resistance	$R_{out(i)}$	B=0mT, $I_C=0.1\text{mA}$	750		1150	Ω
Relative Resistance Ratio	R_{outr} ^{※4}	B=0mT, $I_C=0.1\text{mA}$	95		105	%
Offset Voltage	$V_{os}(V_U)$	B=0mT, $V_C=3\text{V}$	-6		+6	mV
Temp. Coefficient of V_H	αV_H ^{※5}	B=50mT, $V_C=3\text{V}$ $T_a=25\sim 125^\circ\text{C}$		-0.2		%/°C
Temp. Coefficient of R_{in}	αR_{in} ^{※6}	B=0mT, $I_C=0.1\text{mA}$ $T_a=25\sim 125^\circ\text{C}$		-0.2		%/°C

※2. $V_H = V_{HM} - V_{os}(V_U)$ (V_{HM} :meter indication)

※3. $V_{H(i)}$ ($i=1,2$) is Hall output voltage of 2-Hall Elements of one package.

$$V_{Hr \min} = \min(V_{H(i)})/V_{Havg} \times 100, V_{Hr \max} = \max(V_{H(i)})/V_{Havg} \times 100$$

$$\text{Where } V_{Havg} = (V_{H(1)} + V_{H(2)})/2$$

※4. $R_{out(i)}$ ($i=1,2$) is output resistance of 2-Hall Elements of one package.

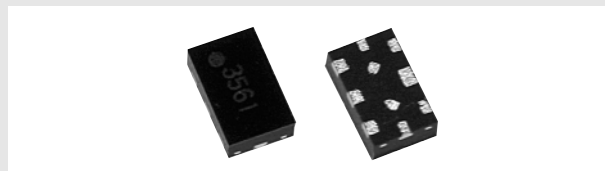
$$R_{out \min} = \min(R_{out(i)})/R_{out \text{ avg}} \times 100, R_{out \max} = \max(R_{out(i)})/R_{out \text{ avg}} \times 100$$

$$R_{out \text{ avg}} = (R_{out(1)} + R_{out(2)})/2$$

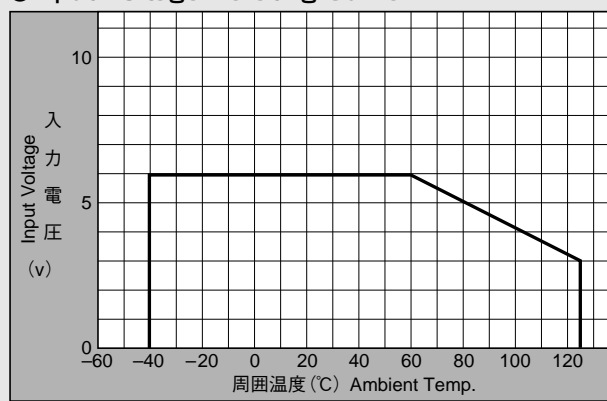
$$\text{※5. } \alpha V_H = \frac{1}{V_H(T_1)} \times \frac{V_H(T_2) - V_H(T_1)}{(T_2 - T_1)} \times 100$$

$$\text{※6. } \alpha R_{in} = \frac{1}{R_{in}(T_1)} \times \frac{R_{in}(T_2) - R_{in}(T_1)}{(T_2 - T_1)} \times 100$$

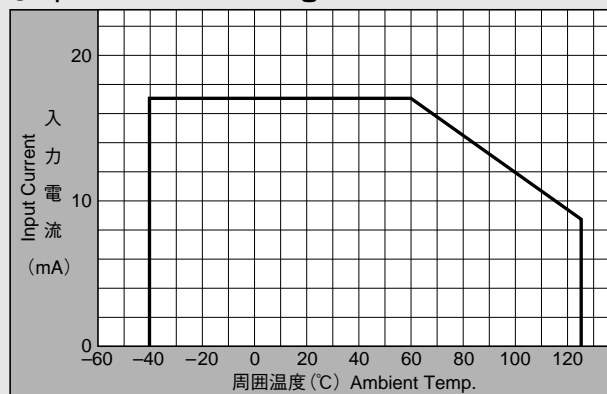
$$T_1 = 25^\circ\text{C}, T_2 = 125^\circ\text{C}$$



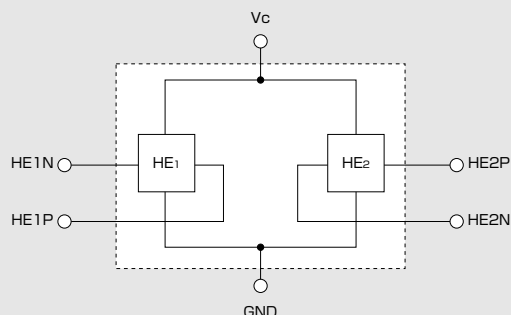
●Input Voltage Derating Curve



●Input Current Derating Curve



●Pinning

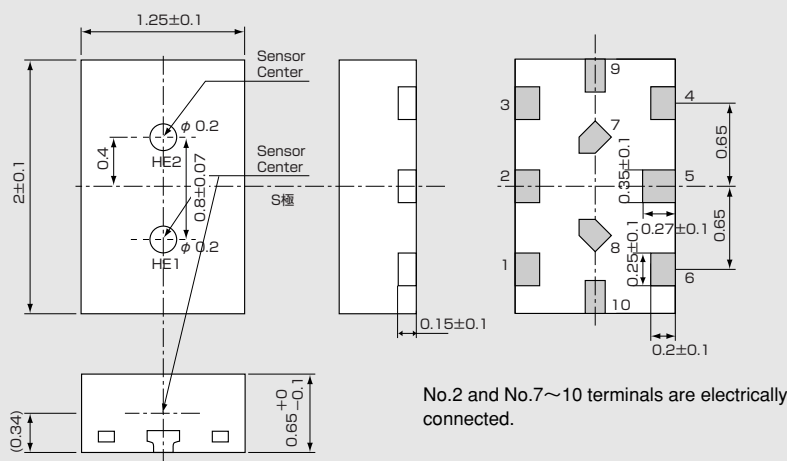


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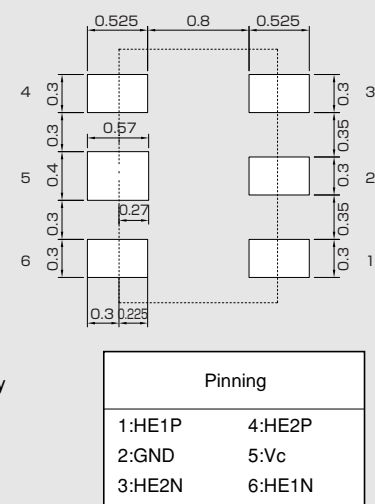
•Handling precautions required for preventing electrostatic discharge.

•This product contains gallium arsenide (GaAs). Handling and discarding precautions required.

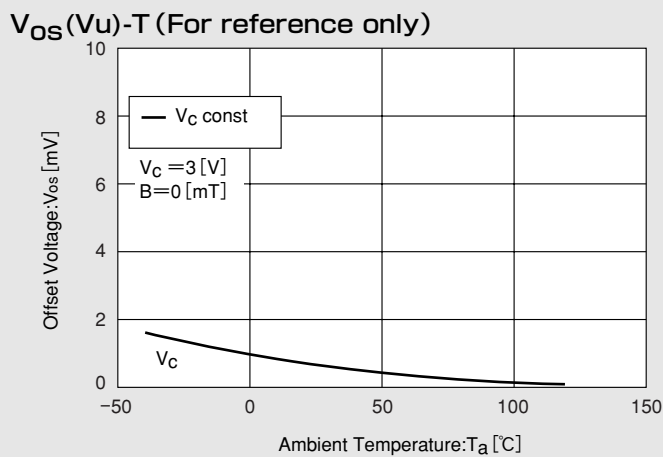
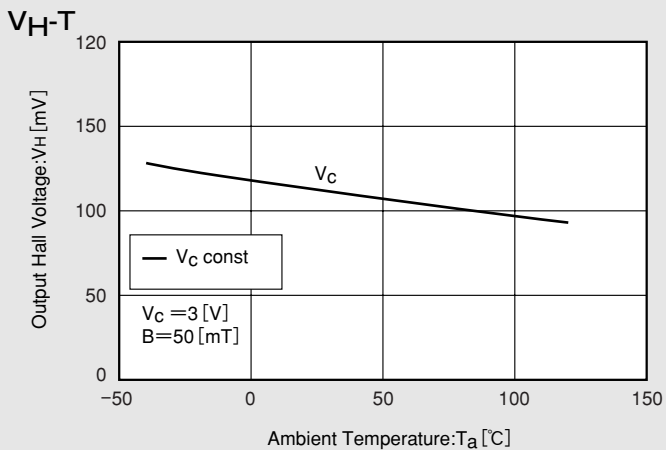
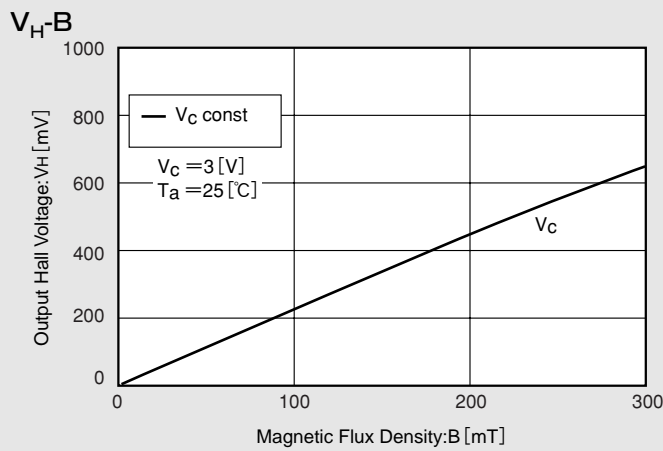
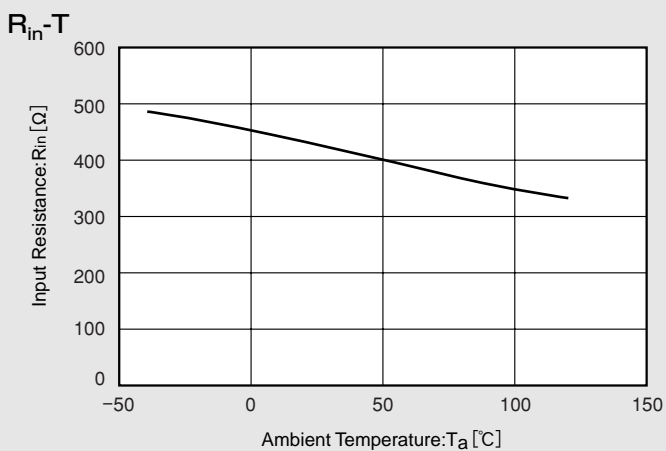
●Dimensional Drawing(Unit : mm)



●Land pattern (for reference only)(Unit : mm)



●Characteristic Curves



※Magnetic Flux Density
1 [mT] = 10 [G]

in This Example: Rin=425 [Ω]、Vos=0.8 [mV] [Vc=3 [V]]

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