

## Under development

\*This product is under development and may change at a later date.

Over current / Over voltage protection

### DESCRIPTION

RT8H020C is combined transistor composed by NPN transistors, PNP transistors and resistors.

Miniaturization of the set, and significant reductions of parts and man-hours will be possible by using this transistor.

RT8H020C constitutes a circuit for detecting over current and over voltage, and if one of them detects an error, it outputs an abnormal signal(Low).

### FEATURES

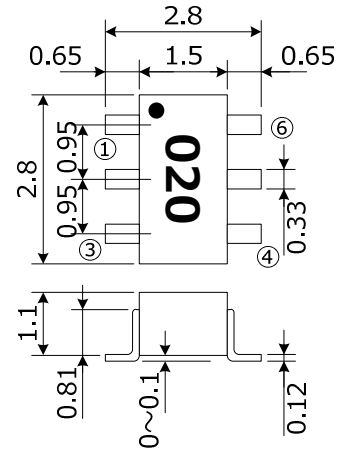
- Miniaturization of a set
- Built-in hysteresis(over current protection only)

### APPLICATION

- Over current and over voltage protection of general electronics equipment

### OUTLINE DRAWING

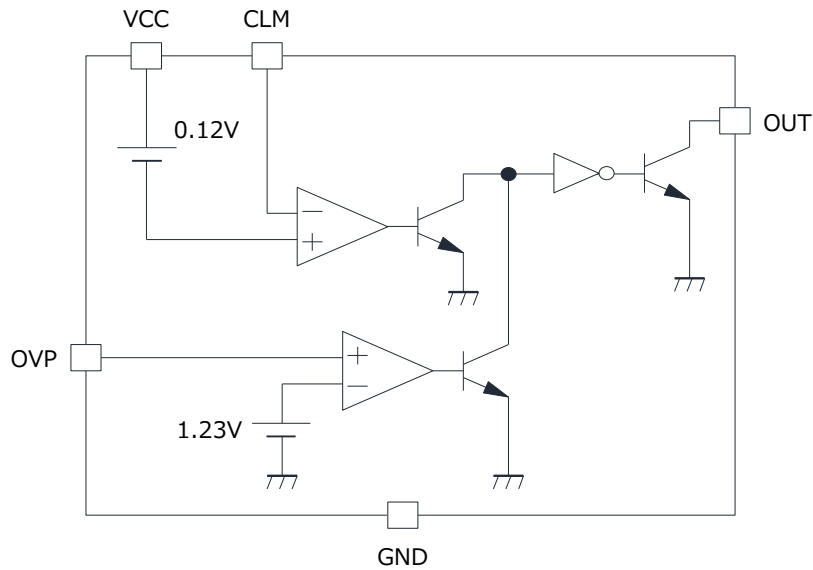
unit : mm



### PIN layout

- |      |       |
|------|-------|
| ①OUT | ⑥N.C. |
| ②VCC | ⑤GND  |
| ③OVP | ④CLM  |

### BLOCK DIAGRAM



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### ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless otherwise noted.)

symbol	Parameter	Condition	Ratings	Unit
VCC	Power supply voltage		8	V
pd	Internal power dissipation		200	mW
K $\theta$	Thermal derating	Ta $\geq$ 25°C	1.6	mW/°C
Tj	Junction temperature		150	°C
Tstg	Storage temperature	keep dry	-40~150	°C
Topr	Operating temperature	keep dry	-20~85	°C

### ELECTRICAL CHARACTERISTIC (Ta=25°C, VCC=12V unless otherwise noted.)

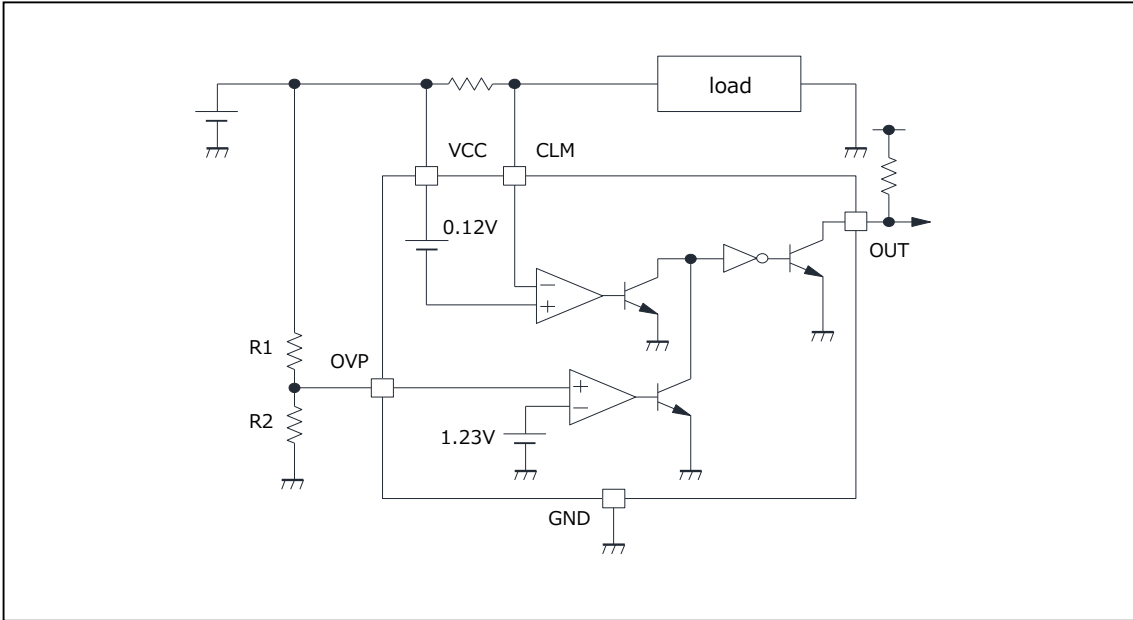
symbol	Parameter	Test condition	Limits			Unit
			Min.	Typ.	Max.	
Vcc	Operating supply voltage range		3	12	14	V
ICC	Circuit current			500		uA
Vth_CLM1	CLM terminal threshold voltage 1			0.12		V
Vth_CLM2	CLM terminal threshold voltage 2			0.11		V
Vth_OVP	OVP terminal threshold voltage			1.23		V
VOUT	OUT terminal saturation voltage	IOUT=5mA		0.3		V

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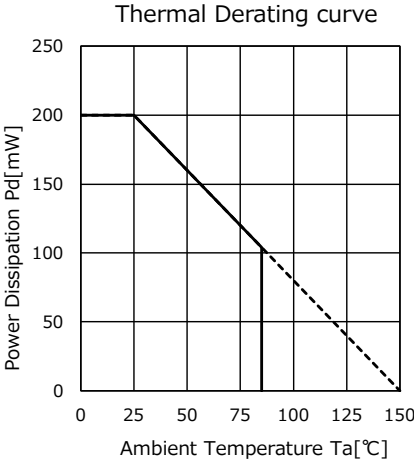
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## APPLICATION CIRCUIT EXAMPLES



«Typical Characteristic»



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**Keep safety first in your circuit designs!**

·ISAHAYA Electronics Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage. Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (1) placement of substitutive, auxiliary, (2) use of non-flammable material or (3) prevention against any malfunction or mishap.

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