

# RT8H065C

latch circuit

## DESCRIPTION

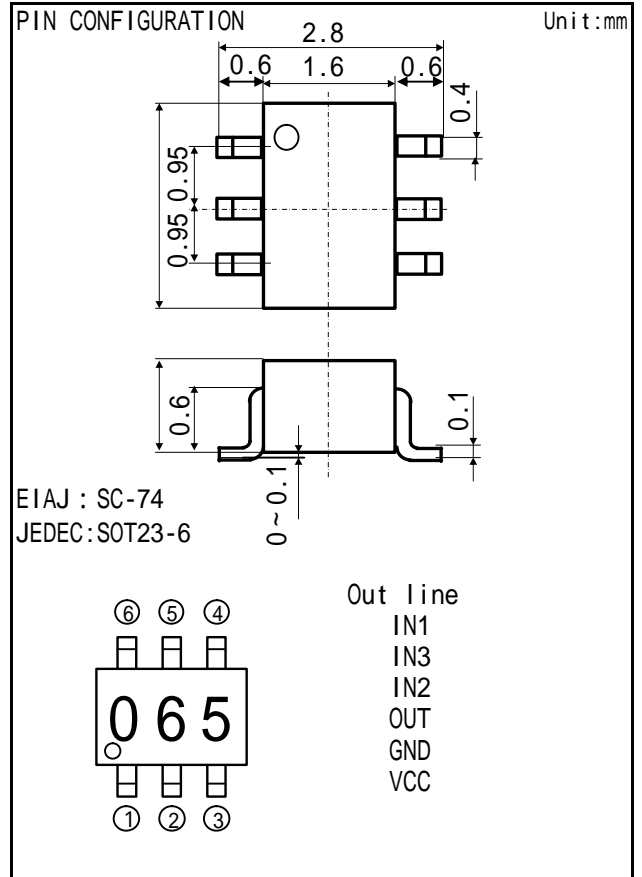
RT8H065C is a NPN transistor, a PNP transistor, and the compound transistor constituted by resistance. This transistor enables a miniaturization of the set and a great reduction in parts and man-hours. The circuit is composed as a latch function.

## FEATURE

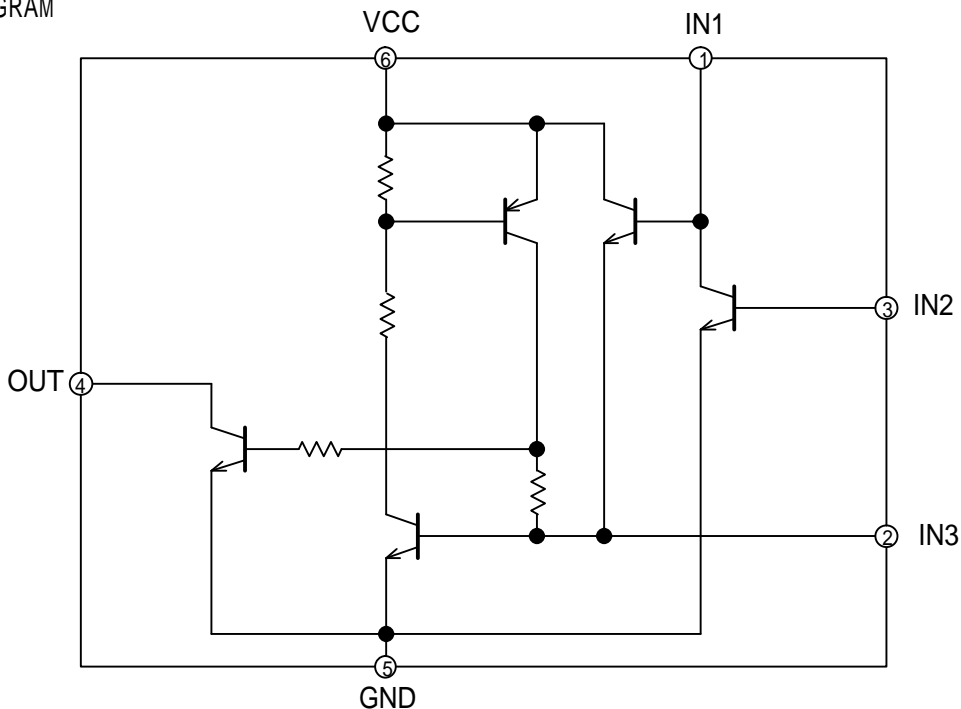
The miniaturization of a set and high-density mounting are possible. The power supply voltage range of operation is wide.

## APPLICATION

Latch operation to protect over voltage and over current, such as a AC adapter.



## BLOCK DIAGRAM



## FUNCTIONAL DESCRIPTION OF TERMINAL

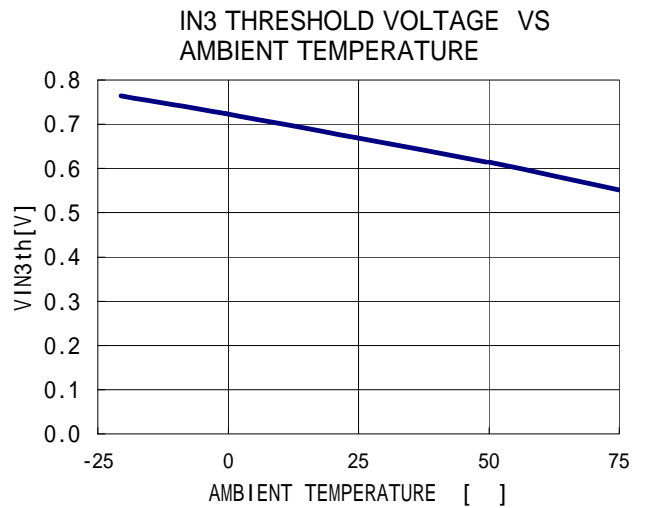
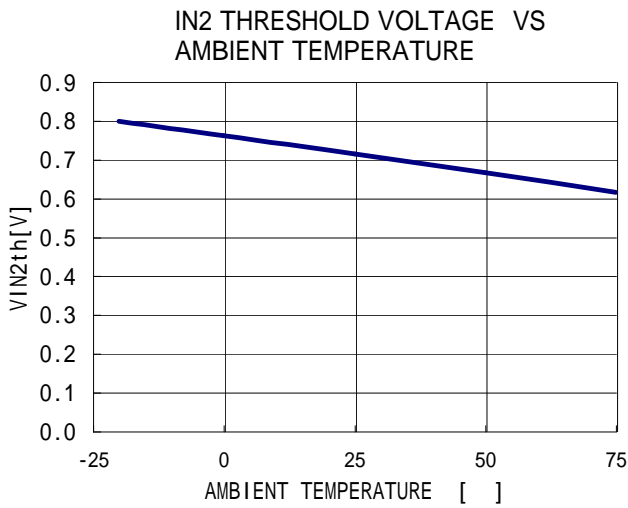
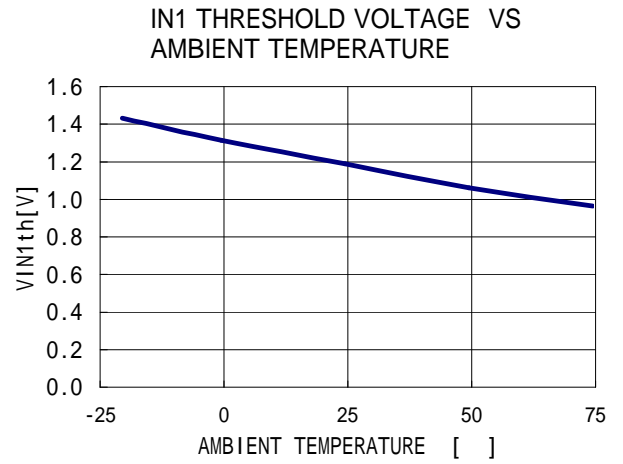
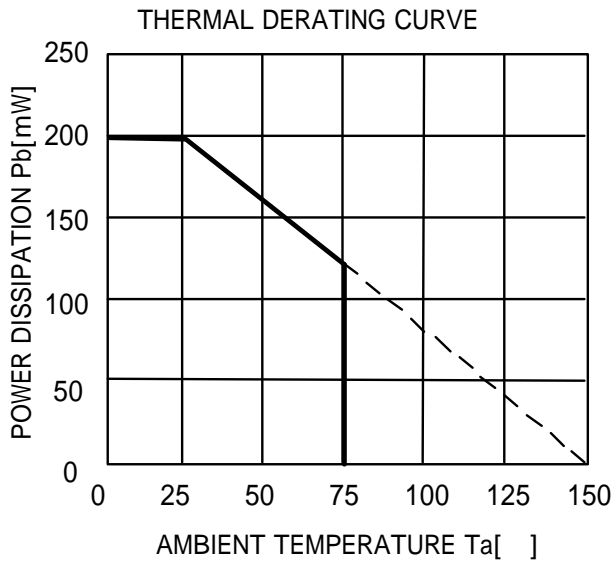
Pin number	Symbol	Functional Description
1	IN1	Input 1
2	IN3	Input 3
3	IN2	Input 2
4	OUT	Output
5	GND	Ground
6	Vcc	Supply voltage

## ABSOLUTE MAXIMUM RATINGS ( unless otherwise noted, Ta = 25 )

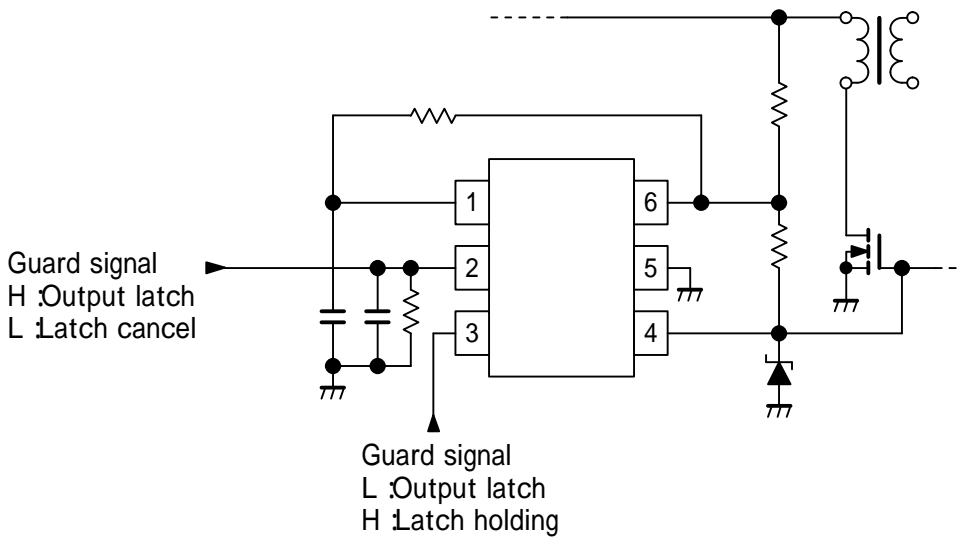
Symbol	Parameter	Conditions	Ratings	Unit
Vcc	Supply voltage		37	V
Isink	Output sink current		15	mA
VOUT	Output voltage		Vcc	V
VIN	Input voltage		-0.4	V
Pd	Power Dissipation		200	mW
K	Thermal derating	Ta 25	1.6	mW/
Tj	Junction temperature		150	
Tstg	Storage temperature		- 40 ~ +150	
Topr	Operating temperature		- 20 ~ +75	

## ELECTRICAL CHARACTERISTICS ( Vcc=22V, Ta=25 Unless otherwise noted )

Symbol	Parameter	Test condition	Limits			Unit
			Min	Typ	Max	
Vcc	Supply voltage	Vcc series resistance 82K output pull-up resistor 30K	-	22	36	V
Icc ( OFF )	Off-state Circuit current	Vcc series resistance 82K output pull-up resistor 30K	-	0	1	uA
Icc ( ON )	On-state Supply current	Vcc series resistance 82K output pull-up resistor 30K	-	250		uA
VIN1th	IN1 threshold voltage	Vcc series resistance 82K output pull-up resistor 30K	1.0	1.2	1.4	V
VIN2th	IN2 threshold voltage	Vcc series resistance 82K IN1 pull-up resistor 30K	0.54	0.69	0.84	V
VIN3th	IN3 threshold voltage	Vcc series resistance 82K output pull-up resistor 30K	0.5	0.65	0.8	V
Vosat	Output saturation voltage	Vcc series resistance 82K Io=6mA		0.4	0.6	V



### APPLICATION CIRCUIT EXAMPLE





**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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