

Preliminary

*This is tentative specification.

DESCRIPTION

RT8H034C is composed by NPN transistors, PNP transistors and resistors. This product makes external FET turn on in OFF time, detects drain current on the voltage of the resistance connected to the source of FET, and has a function which makes an output turn on as compared with reference voltage, and turns off FET for a definite period of time. Moreover, it is possible to control output OFF time by the value of resistance and capacitor linked to CT terminal.

FEATURES

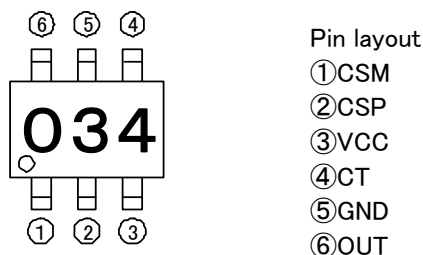
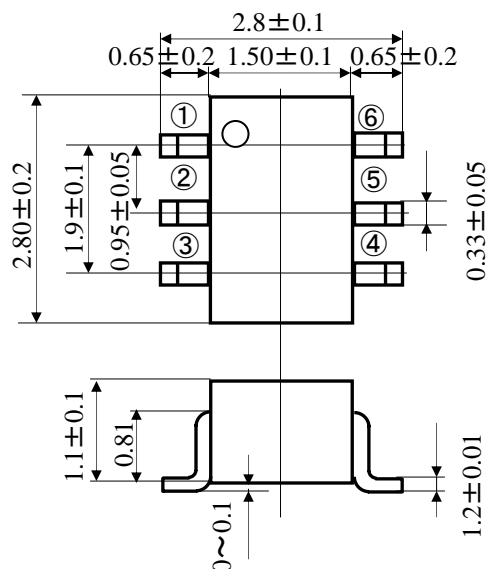
- Miniaturization and Density growth of a set.
- OFF time control by external resistance and capacitor.

APPLICATION

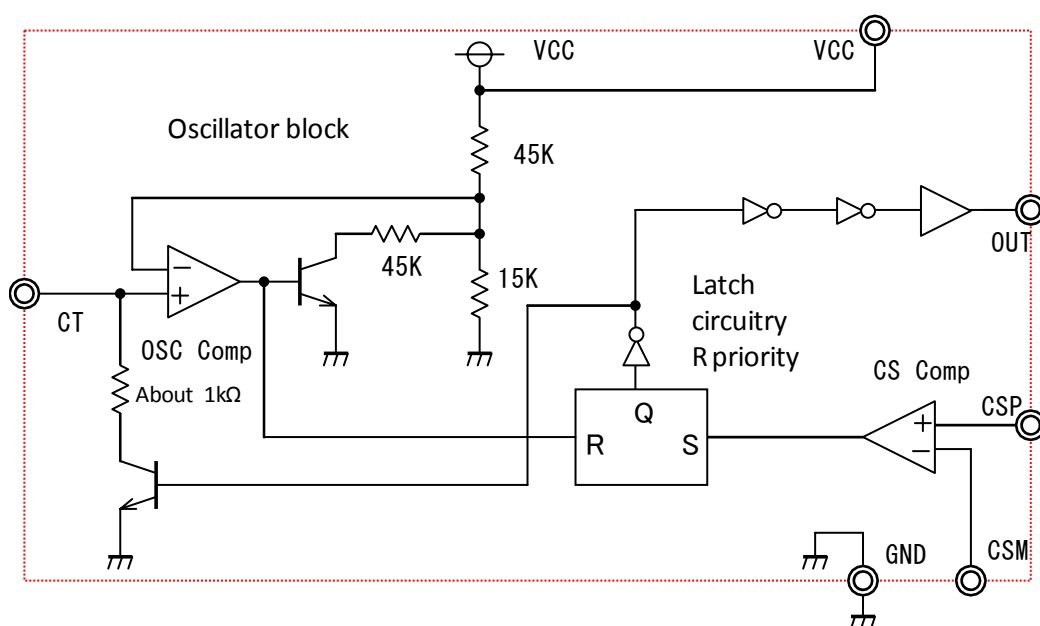
Energy saving of lighting apparatus etc.

OUTLINE DRAWING

Unit: mm



BLOCK DIAGRAM



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ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Test conditions	Ratings	Unit
VCC	Operating voltage range		19	V
VIN	Input voltage	CS COMP Input	-0.3~VCC	V
Pd	Internal power dissipation	Ta ≥ 25°C	200	mW
Kθ	Thermal derating		1.6	mW/°C
Tj	Junction temperature		150	°C
Tstg	Storage temperature	(keep dry)	-40~150	°C
Topr	Operating temperature	(keep dry)	-20~75	°C

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

Symbol	Parameter	Test conditions	Designed value			Unit
			Min	Typ	Max	
VCC	Operating voltage range		9	12	18	V
V _{ICM}	Inphase input voltage range	CS COMP input	0	-	VCC-1.5	V
ICC	Circuit current	CSM:0V, CSP:2V, CT:0V	-	950	1450	uA
IBCSP	CSP Bias current	CSM:0.2V, CSP:0V/IM, CT:0V	-600	-360	0	nA
IBCSM	CSM Bias current	CSM:0V/IM,CSP:0.2V,CT:0V	-600	-360	0	nA
VTHCT1	CT threshold voltage1	After impressing 0V to CT terminal, it is made to change from L to H. CSM:0V,CSP:0.2V	2.70	3.07	3.30	V
VTHCT2	CT threshold voltage2	After impressing VTHCT1 to CT terminal, it is made to change from H to L. CSM:0V, CSP:0.2V	1.50	1.83	2.10	V
VOSAT1	OUT Saturation voltage1	CSM:0.2V,CSP:0V,CT:0V OUT:-5mA	10	10.5	12	V
VOSAT2	OUT Saturation voltage 2	CSM:0V,CSP:0.2V,CT:0V OUT:5mA	0	0.83	1.5	V
TOOFF	OUT off time	RCT=47kΩ, CCT=680pF	-	40	-	us

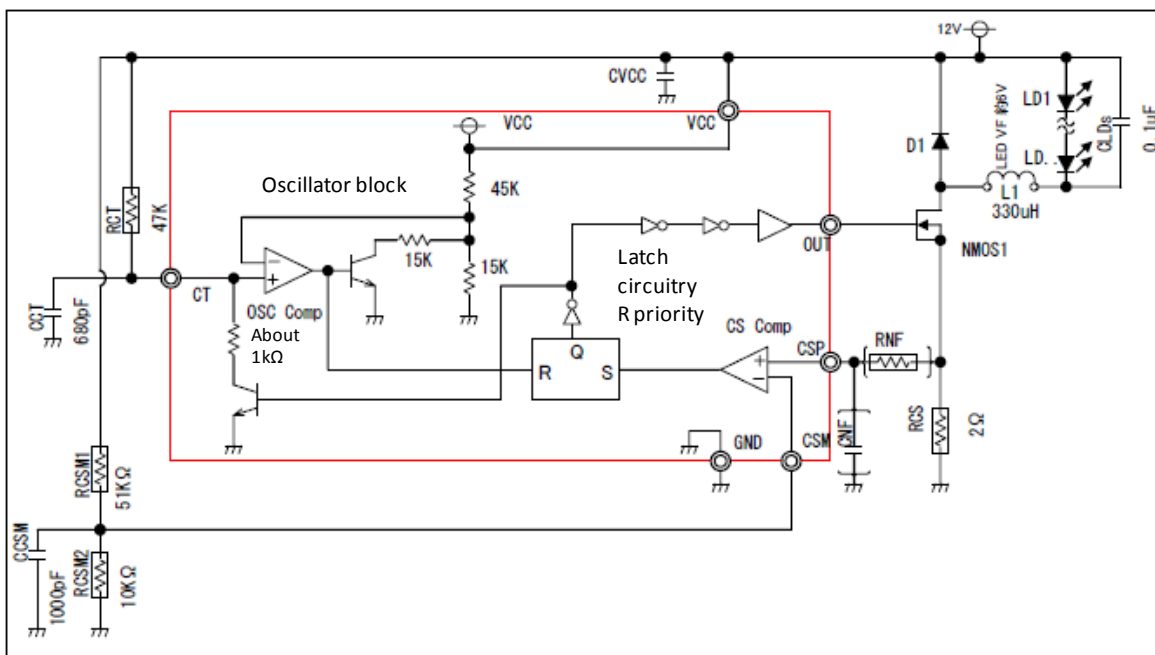
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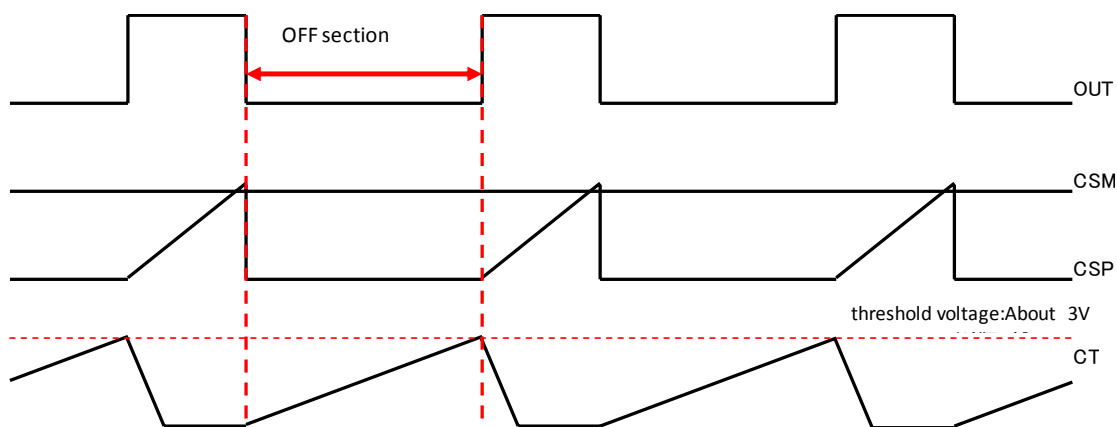
RT8H034C

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APPLICATION CIRCUIT EXAMPLES



Waveform of operation



If a CSP terminal exceeds the voltage of a CSM terminal, an OUT terminal will output Low, and CT terminal is simultaneously charged by the damping time constant determined by RCT (resistance for charge), and CCT (capacity). If CT terminal exceeds a threshold value (about 3V), an output will be set to ON and CT terminal will be discharged. In a series of above-mentioned operations, it controls so that the OFF section becomes at fixed time. CNF and RNF is a noise filter. Please connect if needed.



Keep safety first in your circuit designs!

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