



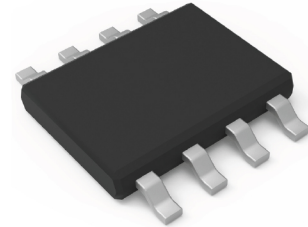
REAL TIME CLOCK IC

REAL TIME CLOCK IC (External Crystal Oscillator)

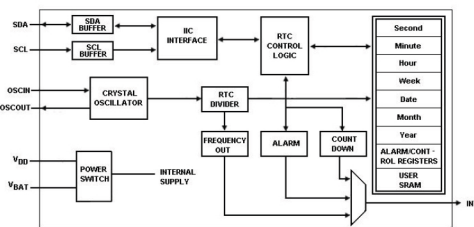


ST3068

- Low power consumption: 0.8µA typical (VDD =3.0V, Ta=25°C).
- Operating voltage: 2.7V~5.5V.
- Operating temperature: -40°C~+85°C.
- ROHS Recognized
- Standard IIC bus interface, maximum speed 400KHz (4.5V~5.5V).
- Chip pin ESD>4KV
- CMOS Process
- Package Form:SOP8/TSSOP8.



Block diagram

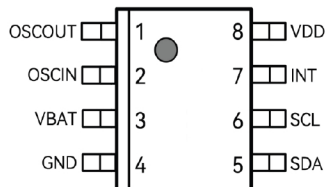


Overview

- Internal 44-byte general-purpose SRAM
- Internal three clock data write protection bits
- Built-in IIC bus 0.5 seconds automatic reset function
- Internal 44-byte general-purpose SRAM
- Auto reload 24-bit countdown timer
- Built-in clock data write-protection function
- VBAT pin with support for either disposable or rechargeable backup batteries

Pin Function

NAME	FUNCTION
SCL	Serial Clock Input. This pin is the clock input for the I ² C serial interface and is used to synchronize data movement on the serial interface. Up to 5.5V can be used for this pin, regardless of the voltage on VCC.
SDA	Serial Data Input/Output. This pin is the data input/output for the I ² C serial interface. This open-drain pin requires an external pullup resistor. The pullup voltage can be up to 5.5V, regardless of the voltage on VCC.
INT	Active-Low Interrupt or Square-Wave Output. This open-drain pin requires an external pullup resistor connected to a supply at 5.5V or less. If not used, this pin can be left floating.
VBAT	External Battery input pin.
OSCIN	The input of the internal oscillator
OSCOUT	The output of the internal oscillator
VCC	DC Power Pin for Primary Power Supply. This pin should be decoupled using a 0.1µF to 1.0µF capacitor.
GND	Ground



Terminal connection

DC Characteristics

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS	NOTES
V _{DD}	Main Power Supply		2.7		5.5	V	
V _{BAT}	Battery Supply Voltage		2.3		3.6	V	
I _{DD1}	Supply Current	V _{DD} =5V		1.2	3.0	µA	
		V _{DD} =3V		1.0	1.5	µA	
I _{DD2}	Supply Current when IIC Active	V _{DD} =5V		40	120	µA	
I _{DD3}	Supply Current when charge enable	V _{DD} =5V		80		µA	
I _{BAT}	Battery Supply Current	V _{BAT} =3V		0.8		µA	
I _{L1}	Input Leakage Current On SCL			100		nA	
I _{L0}	I/O Leakage Current On SDA			100		nA	
V _{BATHYS}	V _{BAT} Hysteresis			300		mV	
INT VOL	Output Low Voltage	V _{DD} =5V I _{OL} =1mA			0.4	V	