Real Time Clock

RV8564C2

Specifications

Parameters	Product	Option Codes
	RV8564C2	
Frequencies (selectable): 32.768kHz, 1024Hz, 32Hz & 1Hz	■	
Frequency tolerance: ±10ppm	□	A
±20ppm	■	B
Other	□	specify
Turnover temperature (T_0): +25°C ±5°C	■	
Frequency / temp coefficient: -0.035ppm/°C^2 ±10%	■	
Operating temperature range: -40 to +85°C	■	
Storage temperature range: -55 to +125°C	■	
Supply voltage (V_{DD}): I^{2}C bus active 1.8 ~ 5.5V	■	
Data holding voltage (V_{DD}): 1.2 ~ 5.5V	■	
Supply current (during access): 200µA max (fscl=100kHz)	■	
800µA max (fscl=400kHz)	■	
Supply current (backup mode): 275nA typ (fscl=0Hz, V_{DD}=3V)	■	
250nA typ (fscl=0Hz, V_{DD}=2V)	■	
Start up time: 3s max	■	
Ageing: ±3ppm max first year	■	
Shock and vibration resistance: ±5ppm, 5,000g, 0.3ms, ½ sine	■	
±5ppm, 20g, 10.0 ~ 2,000Hz	■	
Soldering condition: Reflow, 260°C, 20 sec max	■	

■ Standard. □ Optional - Please specify required code(s) when ordering

Dimensions

5.20 (max)
3.40 (max)
1.20 (max)

ACTUAL SIZE

SOLDER PAD LAYOUT

0.90
2.20
0.60
1.00
TOP VIEW

1.00   0.40

Scale 3:1

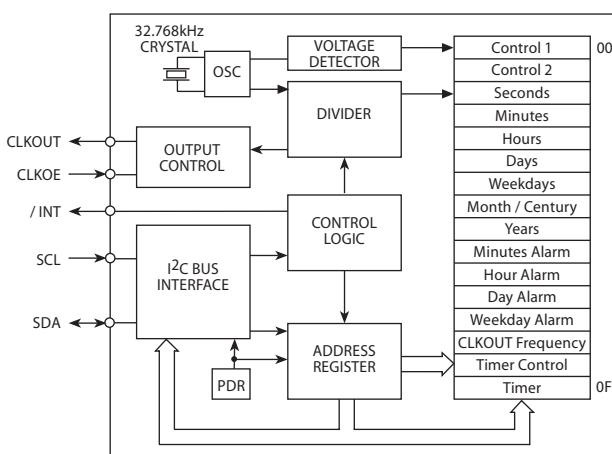| PAD	CONNECTION	PAD	CONNECTION
1	Supply (VDD)	6	Ground
2	Frequency output (CLKOUT)	7	Interrupt output (/INT)
3	Not connected	8	Not connected
4	Serial clock input (SCL)	9	Not connected
5	Data (SDA)	10	FOUT output enable (CLKOE)

Features

▶ **Equivalent to Epson RX-8564CF**

▶ **Compliant with I^{2}C-Bus interface (400kHz)**

▶ **Built in crystal for adjustment-free operation**

▶ **Programmable alarm, timer and interrupt**

▶ **Low power consumption, low ageing**

Ordering Information

Product + option code
eg: **RV8564C2/B** ±20ppm
Option code X (eg RV8564C2/X) denotes a custom spec.

◆ Available on T&R - 1.5k or 3.5k pcs per reel.
◆ Refer to our website for T&R and soldering details.
◆ The I^{2}C-Bus is a trademark of Philips Electronics NBV

Block Diagram

32.768kHz CRYSTAL — OSC — VOLTAGE DETECTOR

Register	Addr
Control 1	00
Control 2	
Seconds	
Minutes	
Hours	
Days	
Weekdays	
Month / Century	
Years	
Minutes Alarm	
Hour Alarm	
Day Alarm	
Weekday Alarm	
CLKOUT Frequency	
Timer Control	
Timer	0F

DIVIDER

CLKOUT
CLKOE
/ INT
SCL
SDA

OUTPUT CONTROL

CONTROL LOGIC

I^{2}C BUS INTERFACE

ADDRESS REGISTER

PDR