

E

To-Type SMD Programmable AD Pyroelectric Infrared Sensors

S23-S340R

V1.

1.

1.1

ISO14001

ISO14001

ISO 9001

ISO

- “ ISO 9001 ”

1.2 ROHS

ROHS

“
ROHS

2011/65/EC ”

1.3

1.3.1

1.3.2

IC

PIR

MCU

S23-S340R

MCU

MCU

MCU

PIR

14

2.

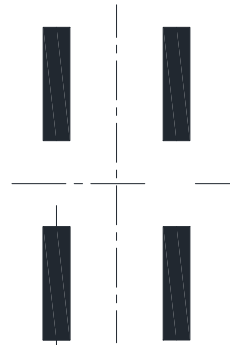
3.2

SMD

3.3

USB

3.4



1

±

(unit): mm

SERIN						
INT/DOC I						

3.7

S23-S340R PIR

 ADC

3.7.1.

- 1 MUX ADC PIR

- 2 (BAND GAP Volatage Ref)

- 3 (OSC) 64kHz

- 4 (LPF HPF) 7Hz 0.4Hz

- 5 (Comparator&Alarm Event Logic)

0 = 1 =

7) ADC

ADC	ADC	:
PIR	BFP	= 0
PIR	LPF	= 1
	= 2	
	= 3	
	“ 0 ”	“ 1 ”

8)

9

1= 0=

3.7.3

(0

DR

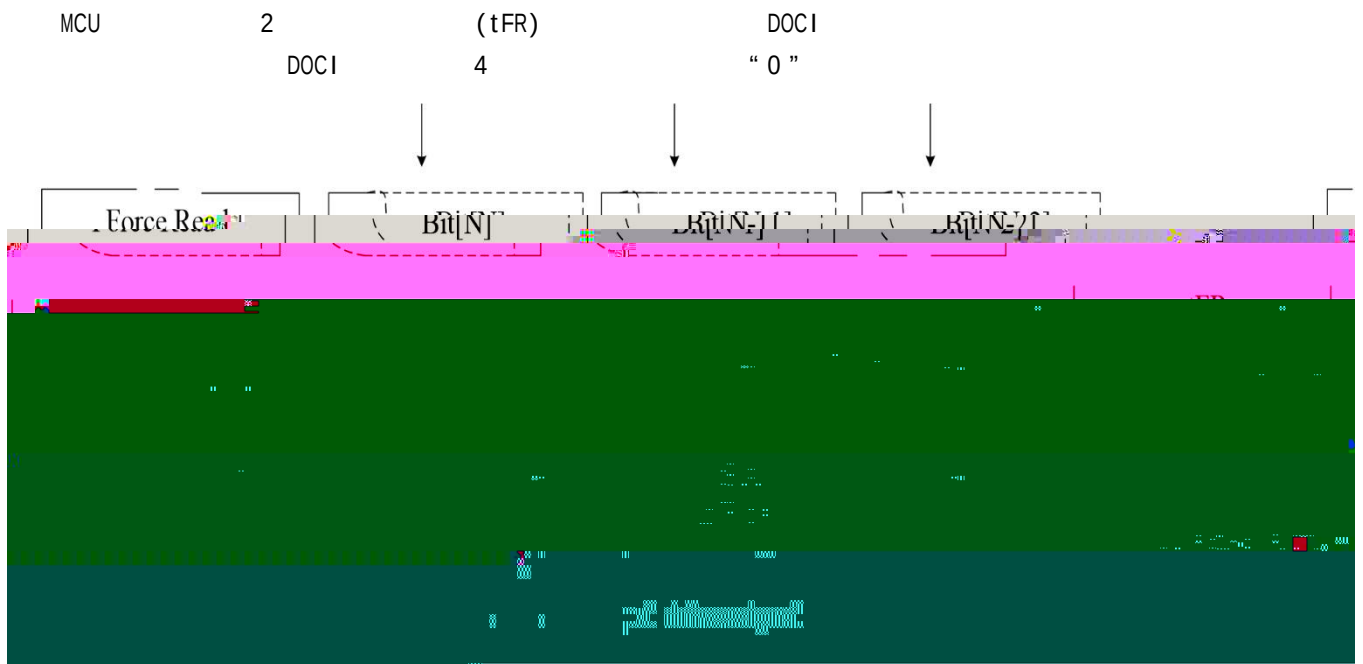
RIN

SERIN

0 1

3.7.4

DOCI



ADC

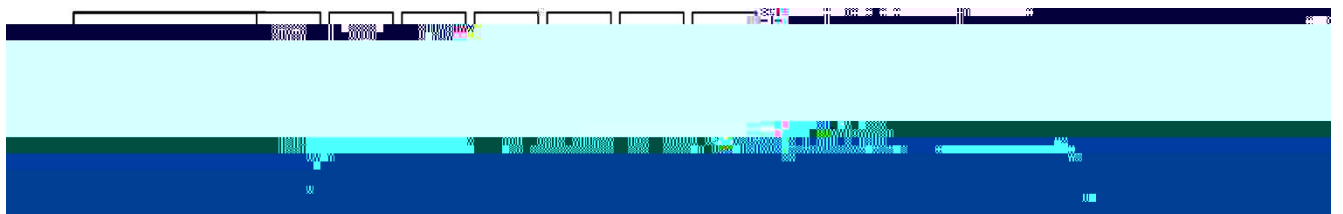
DOCI / INTR

ADC

512

PIR

DOCI



[6:5]	[1:0] ADC	0 = PIR (HPF) 1 = PIR (LPF) 2 = 3 =
[4:1]		
[0]		1= 0=

3.8

3.8.1 PIR

1)

$$V_{PIR} = (ADC_out - ADC_offset) * 6.5\mu v$$

2)

ADC [6:5] PIR HPF (=0)
VPIR = ADC_out * 6.5μv

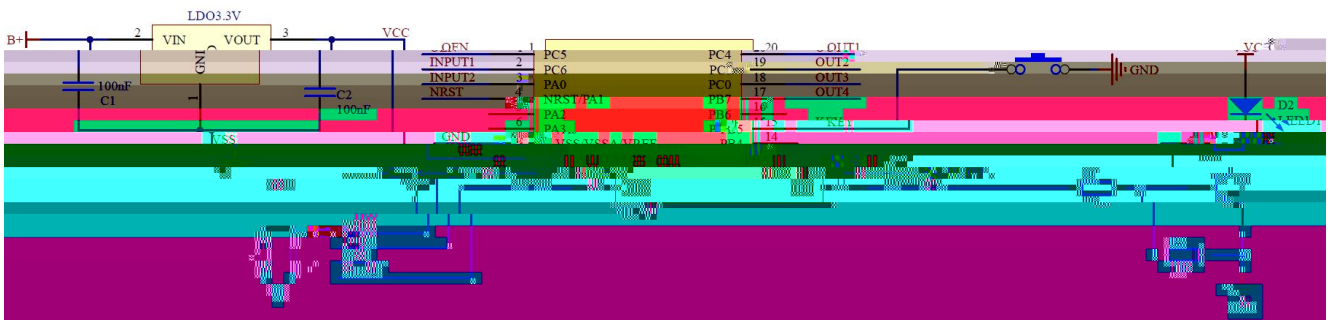
3.8.2

$$V_{DD} = (ADC_out - ADC_offset) * 650\mu V.$$

3.8.3

$$\begin{aligned} \text{ADC} \quad [6:5] & \quad (\quad = 3) \\ & = \text{Tcal} + (\text{ADC_out} - \text{ADC_offset}(\text{Tcal})) / 80 * \text{count} / K \\ \text{ADC_offset} & = \text{ADC} \quad @ \text{VIN} = 0 \quad = 2^{13} \\ \text{ADC_offset}(\text{Tcal}) & = \quad \text{ADC} \quad = 8200 @ 300k \end{aligned}$$

4.



7.1.6

SO₂

CL₂, NO_x

7.1.7

72h

40 ± 10%RH

7.1.8

3

7.2

7.2.1

7.2.1.1

7.2.1.2

7.2.1.3

7.2.1.4

1

SO₂ CL₂, NO_x

2

3

4

5

6

7

8

7.2.2

1

2

3

4

5 *

6

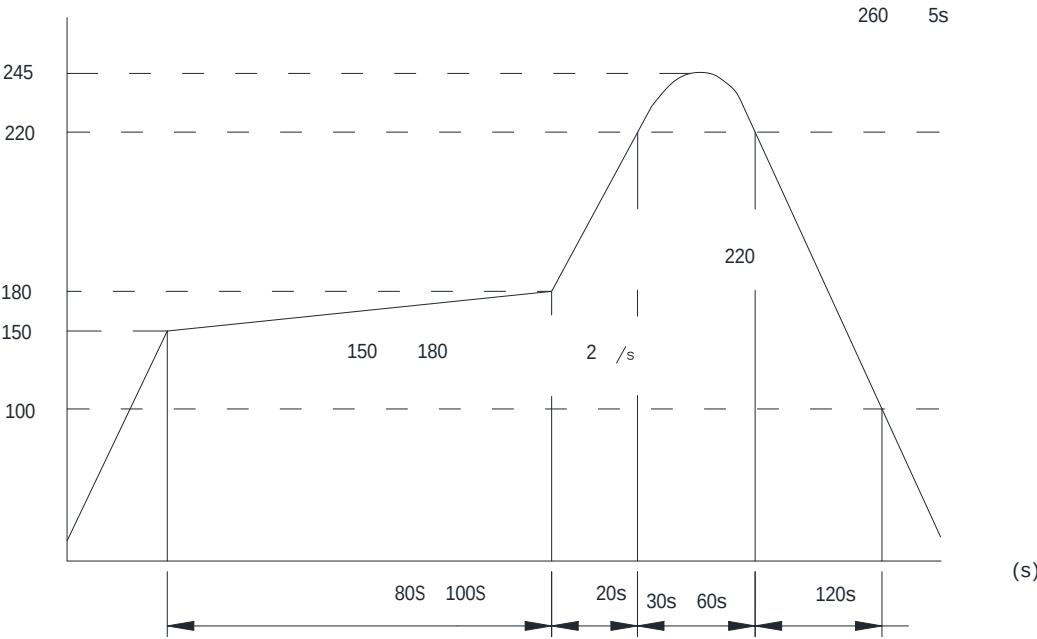
7

8

7.3

7.3.1	7		
7.3.2	PIR	PIR	3

7.3.3
7.3.4



- 1
- 2 *
- 3 *
- 4 *

“ ”