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 “ 2011/65/EC”
ROHS

1.3

1.3.1

1.3.2

IC
PIR MCU S23-S340R
MCU MCU
MCU PIR
14

2.

23 ß

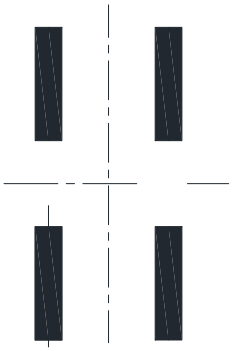
3.2

SMD

3.3

USB

3.4



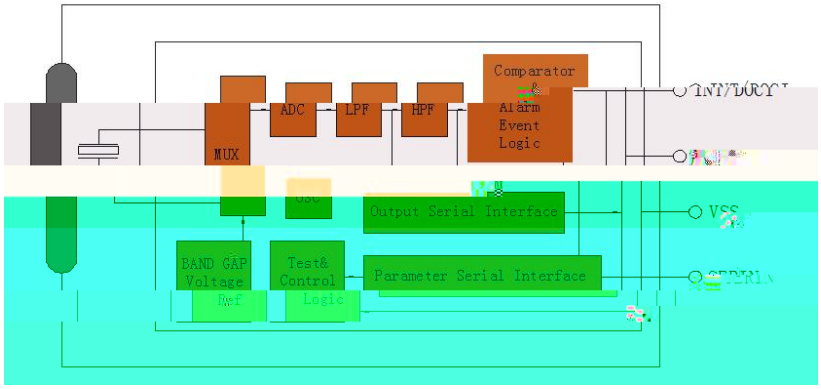
1

±

(unit):mm

3.5

	TST	-20	70		
	θ	X=120 °	Y=90 °	°	
	TST	-30	80		
	λ	5	14	μm	



3.6 (VDD = +3V TAMB = +25 50 ± 10%)

SERIN						
INT/DOCI						

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

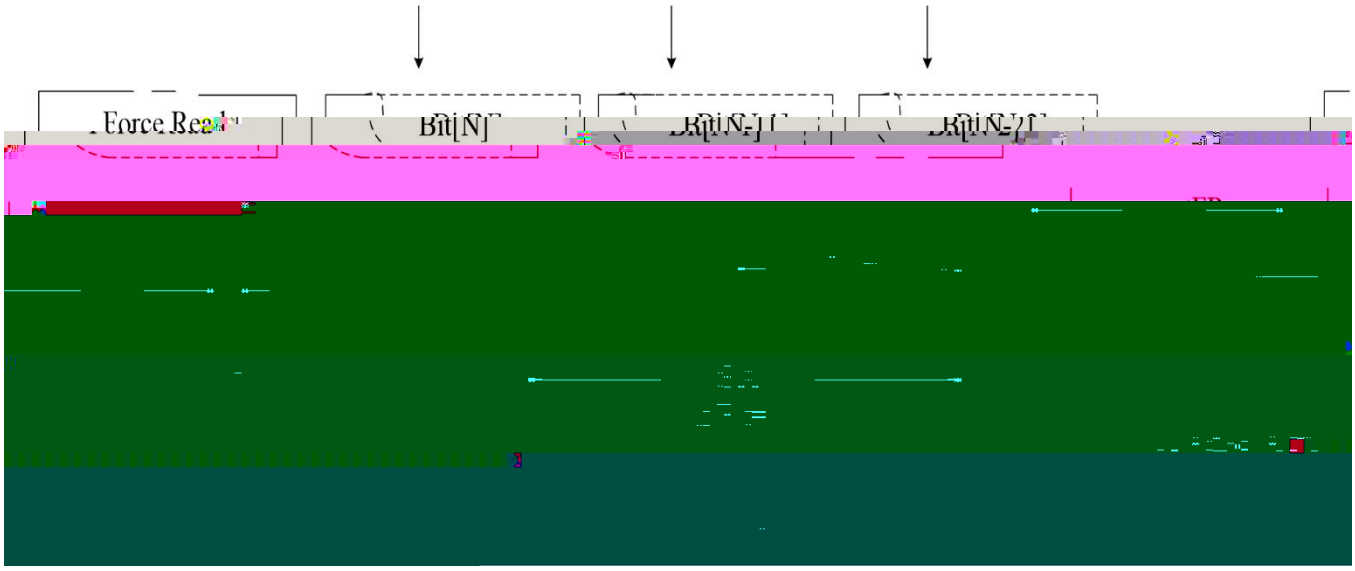
1= 0=

3.7.3 DR RIN

(0 SERIN 0 1

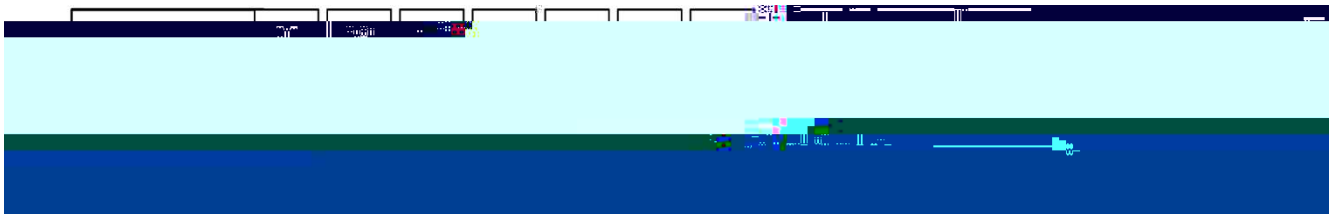
3.7.4 DOCI

MCU 2 (tFR) DOCI
DOCI 4 “0”



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)
ADC [6:5] PIR LPF (=1)
VPIR = (ADC_out - ADC_offset) * 6.5μv

2)
ADC [6:5] PIR HPF (=0)
VPIR = ADC_out * 6.5μv

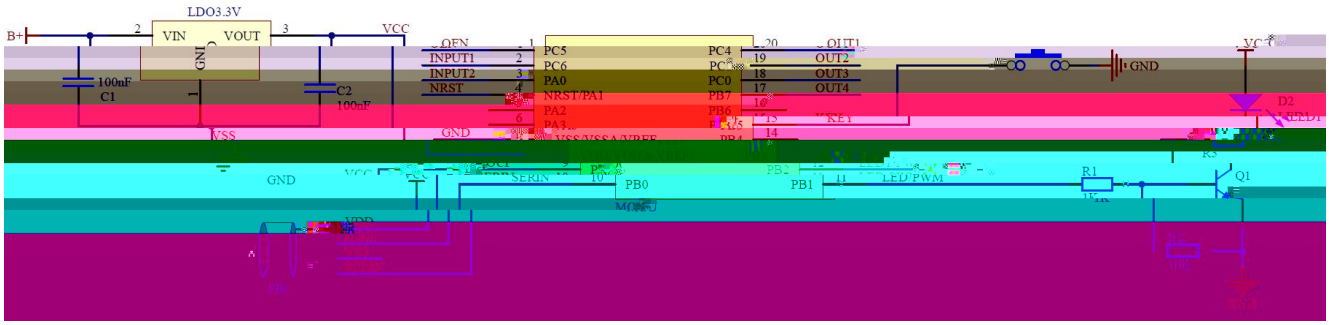
3.8.2

ADC [6:5] (=2)
VDD = (ADC_out - ADC_offset) * 650μV.

3.8.3

ADC [6:5] (=3)
= Tcal + (ADC_out - ADC_offset(Tcal)) / 80 * count /K
ADC_offset = ADC @ VIN = 0 = 2^13
ADC_offset(Tcal) = ADC = 8200@300k

4.



7.1.6 SO2
CL2,NOx
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 SO_2 CL_2,NOx

2
3
4
5
6
7
8
7.2.2
1

2

3

4

5 *

6

7
8

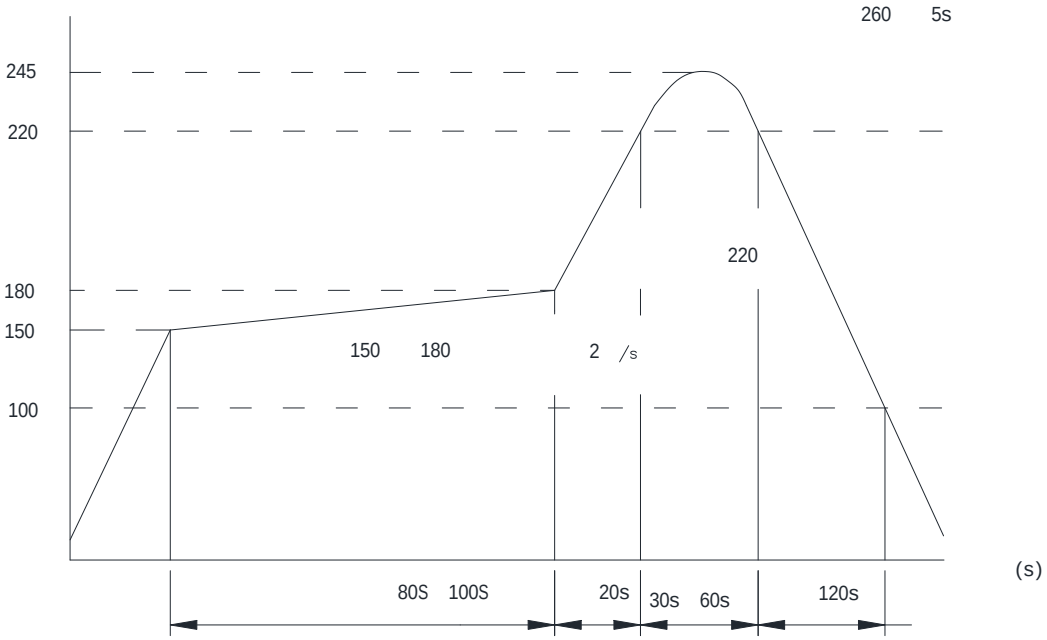
7.3

7.3.1 7

7.3.2 PIR PIR 3

7.3.3

7.3.4



1

2 *

3 *

“ ”

4 *