/ Descriptions

BRCM24C02SC SOP-8 2 Kbit I²C

/ Features

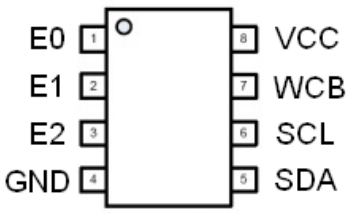
1.7V 2.5~5.5V 1Mhz 1.7~2.5V
400Khz
CMOS 400uA 1.6mA

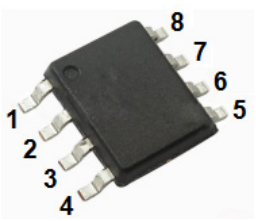
8

128
5ms
100 100 ESD HBM 6KV
+/-200mA;

/ Applications

/ Pinning





/ Pinning

Pin	Name	Type	Description
1	E0	Input	
2	E1	Input	
3	E2	Input	
4	GND	Ground	
5	SDA	I/O	/
6	SCL	Input	
7	WCB	Input	
8	VCC	Power	

/ Marking

/ Absolute Maximum Ratings(Ta=25)

			mA
ˆ ~			V

/ Reliability Characteristic

		Ņ˜ ˘				

/ DC Electrical Characteristics(Unless otherwise specified, Vcc = 1.7V to 5.5V, T_A = –40°C to 85°C)

		°				
		°				
			–			

/ AC Electrical Characteristics(Unless otherwise specified, Vcc = 1.7V to 5.5V, T_A = –40°C to 85°)

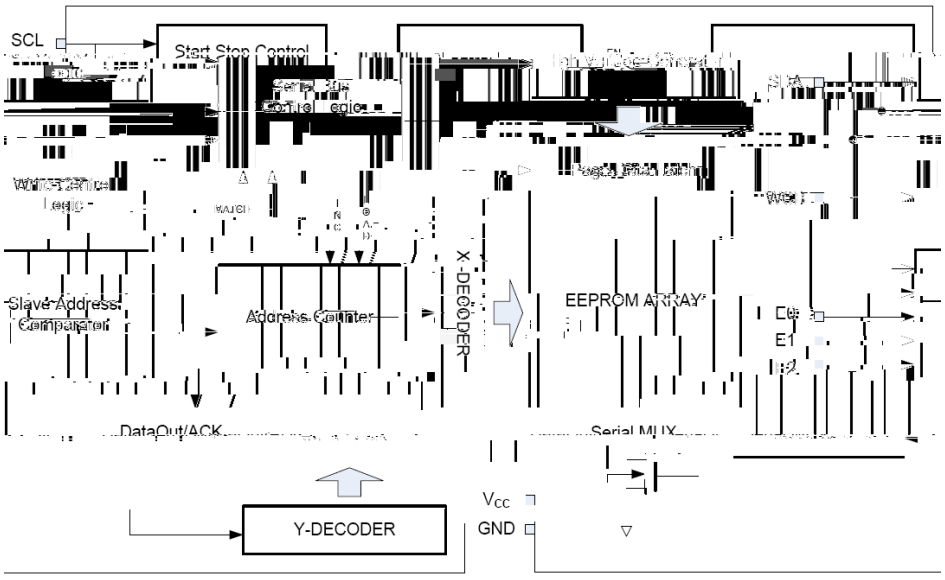
		≤			≤	≤		

/ AC Electrical Characteristics(Unless otherwise specified, Vcc = 1.7V to 5.5V, T_A = –40°C to 85°)

		≤			≤ ≤			

≤

/ Functional Block Diagram



/ Functional Description

p / Data Input

SDA SDA SCL (1) SCL
SDA (1)

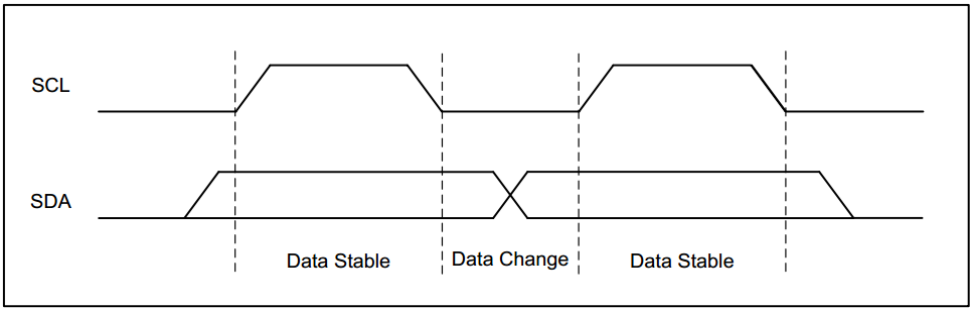


Figure 1 Data Validity

p / Start Condition

SCL SDA
2

p / Stop Condition

SCL SDA
BRCM24C02SC

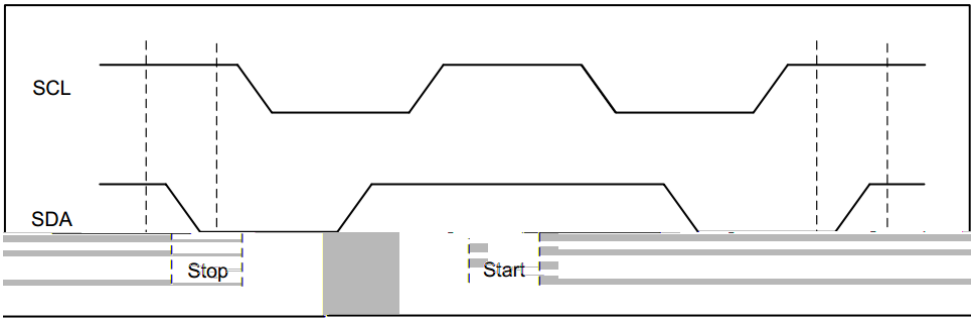


Figure 2 Start and Stop Definition

p ACK / Acknowledge

BRCM24C02SC BRCM24C02SC “ 0 ”
ACK 9

/ Functional Description

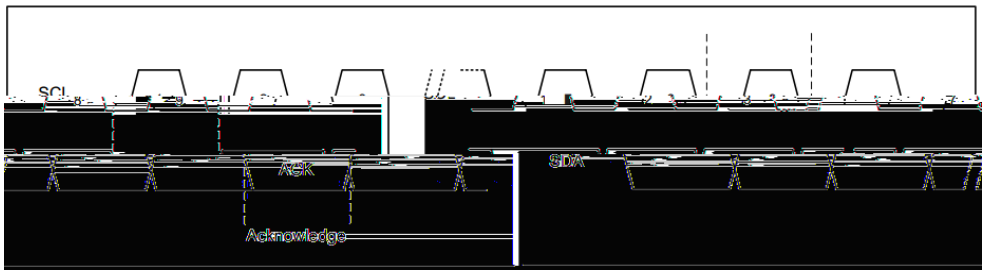


Figure 3 Output Acknowledge

p **/ Standby Mode**

BRCM24C02SC :(a) ,(b)
,(c)

p **/ Soft Reset**

(a) ,(b)
,(c) 4

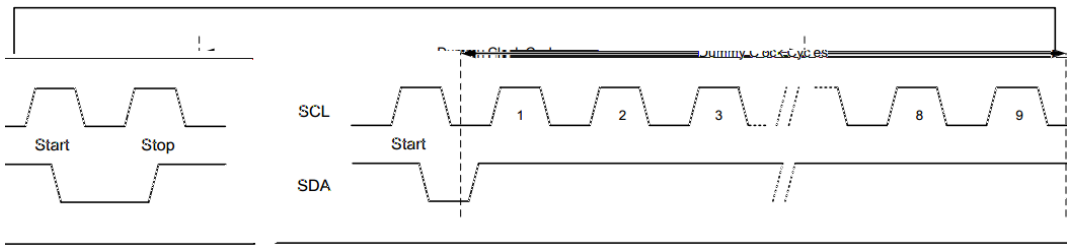


Figure 4 Soft Reset

p **/ Device Addressing**

BRCM24C02SC 8 1
1 0

/ Functional Description

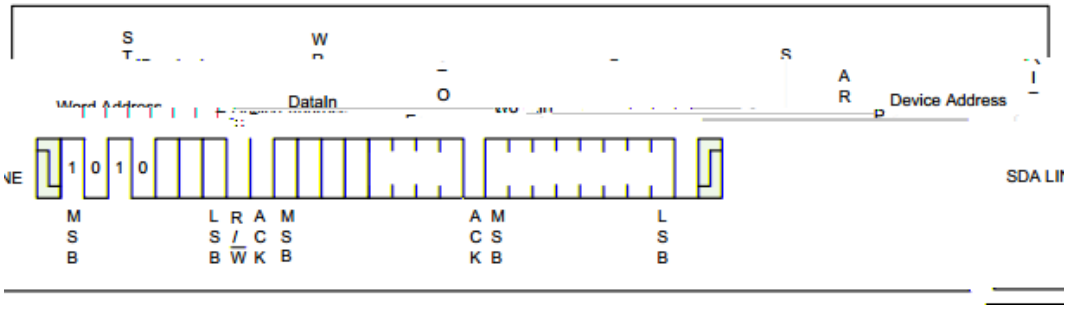
E2,E1 E0 8 E2,E1 E0

8 /

0 1 0

ľ Ø

/ Functional Description



p / Page Write

BRCM24C02SC BRCM24C02SC

“ 0 ”

3

BRCM24C02SC 8

/ Functional Description

p **/ Acknowledge Polling**

BRCM24C02SC

/ BRCM24C02SC

“ 0 ”

p **/ Write Identification Page**

16

(a) 1011b

(b) A5 / A4 0 1 A7 / A6 “ 00 ”

(c) A3 / A0

NoACK

p **/ Lock Identification Page**

ID Lock ID

(a) 1011b;

(b) A6 1 ;

(c) xxxx xx1x x 0 1

/ Functional Description

p / Read Operations

/ / “ 1 ”

;

p / Current Address Read

1

/ “ 1 ” BRCM24C02SC

“ 0 ” 7

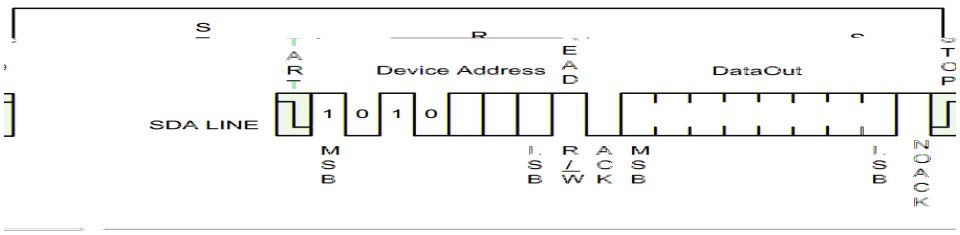


Figure 7

p / Random Address Read

“ ”

BRCM24C02SC /

BRCM24C02SC

“ 0 ” 8

/ Functional Description

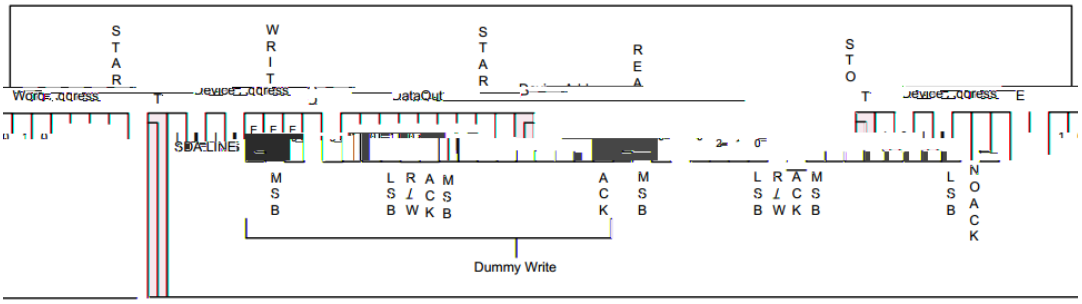


Figure 8 Random Address Read

p **/ Sequential Read**

BRCM24C02SC

“ 0 ”

9

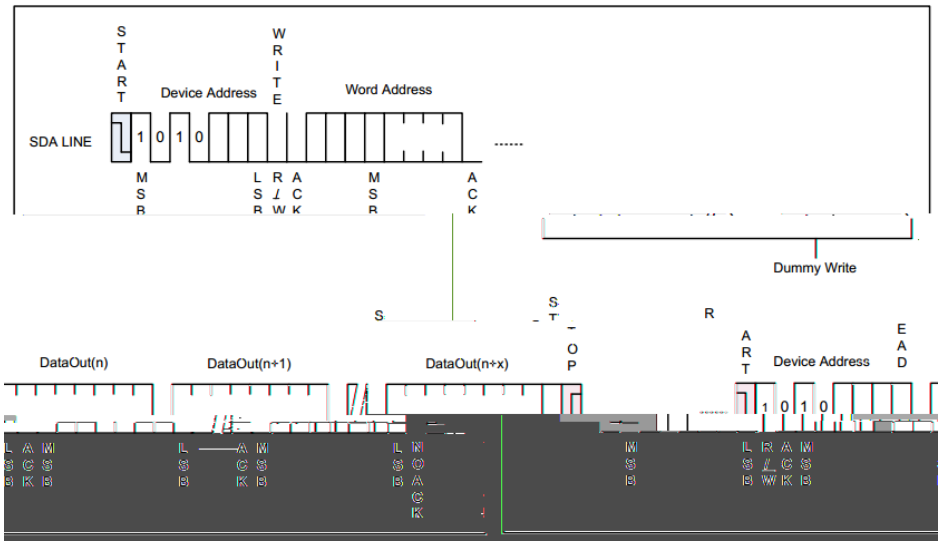


Figure 9

/ Functional Description

p **/ Read Identification Page**

16

1011b A7 / A6 0 A5 A4 / A0 ID

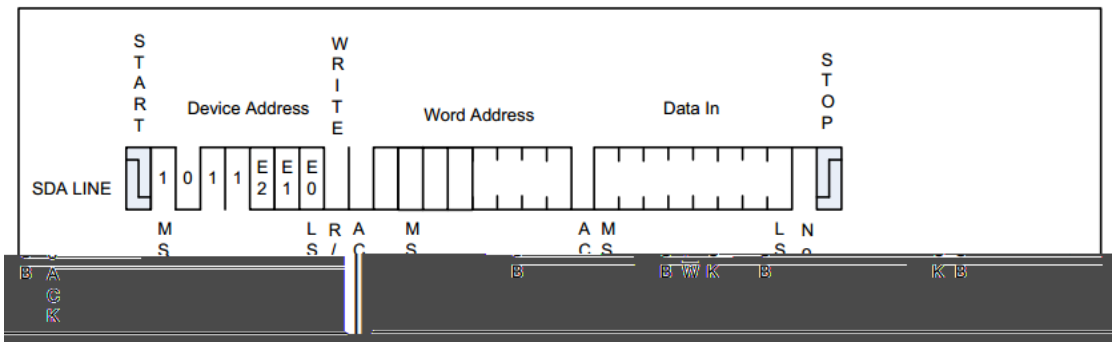
10d 6 ID

16

p **/ Read the Lock Status**

[+] /

ACK NoACK,(10)



p **/ Read Serial Number**

16

1

128

EEPROM “ ”

EEPROM

1

/ Functional Description

A7 A6 “ 10 ” 2 “ 10 ”

80h

128 16

128 ACK

7

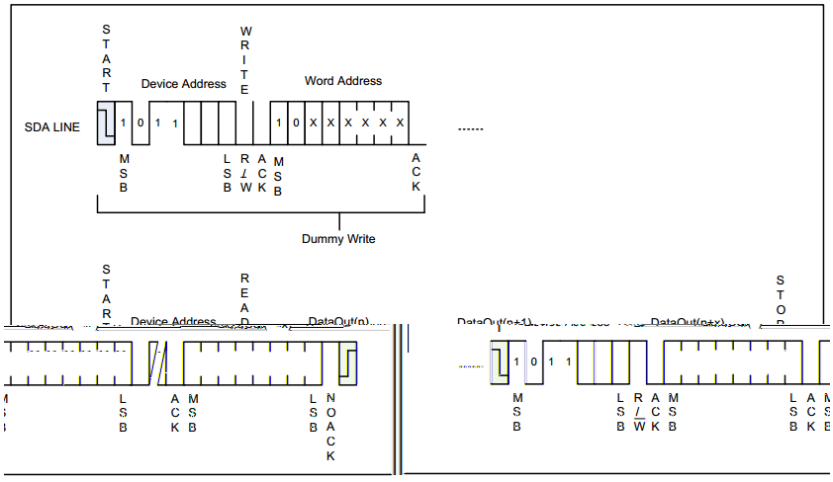
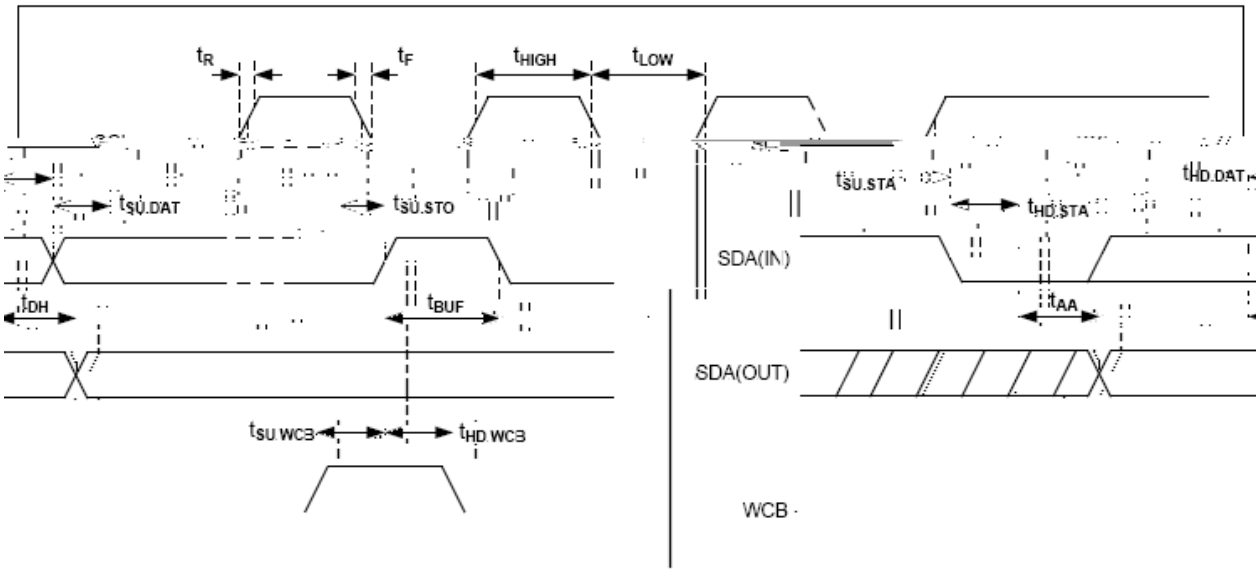


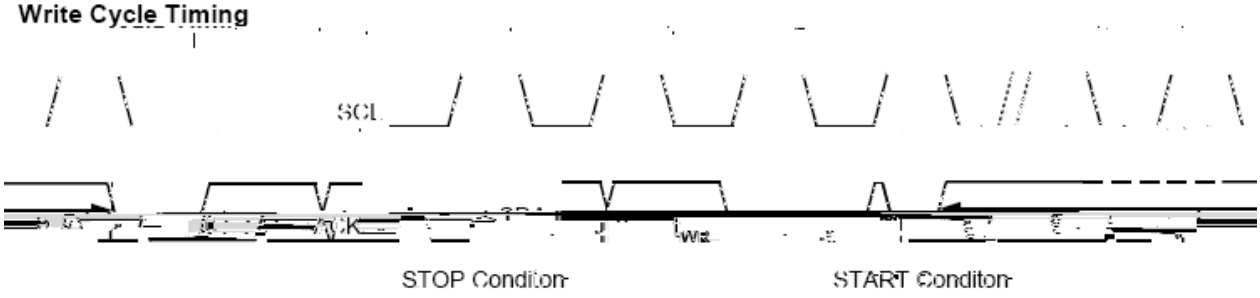
Figure 11 Sequential Read

/ Time Sequence Diagram

Bus Timing



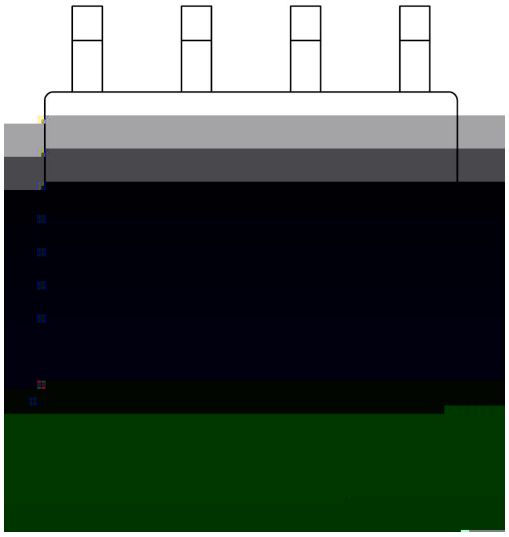
Write Cycle Timing



Note: The write cycle time t_{WR} is the time from a valid stop condition of a write sequence to the end of the internal clear/write cycle.

/ Package Dimensions

/ Marking Instructions



24C02

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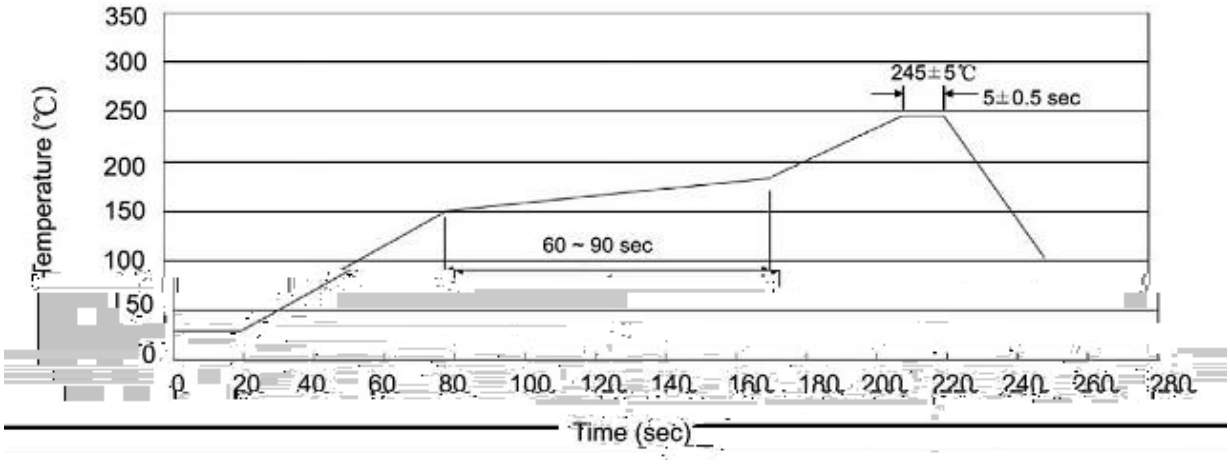
( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



± ± ± ±

/ Resistance to Soldering Heat Test Conditions

± ± ± ±

/ Packaging SPEC.

	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOP/ESOP-8	4,000	2	8,000	6	48,000	13 ρ ×12	360×360×50	380×335×366

/ Notices