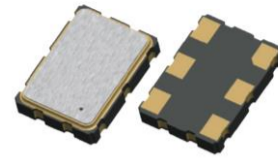


## Features

- Typical 2.0 x 1.6 x 0.75 mm ceramic SMD package.
- low Power Supply Voltage: 3.3V, 2.5V, 1.8V
- Frequency 32.768kHz
- Singled-end Output:CMOS
- Frequency Stability  $\pm 25$ ppm over -40oC to 85oC @3days A
- Pb-free/RoHS compliant
- RTC Reference Clock
- Wearable device
- Sport Video Cams
- Mobile Phones
- Health and Wellness Monitors



## BS2016A Series

Parameter	3.3v		2.5V		1.8V		Unit	Condtions
	Min.	Max.	Min.	Max.	Min.	Max.		
Supply Voltage Variation	VDD-10%	VDD+10%	VDD-5%	VDD+5%	VDD-5%	VDD+5%	V	
Frequency	32.768						kHz	
Transition Time (10%-90%)		15.0		15.0		15.0	nSec	
Supply Current (No Load)		35		35		35	uA	@No Load
Duty Cycle	45	55	45	55	45	55	%	
Output Level	2.97	-	2.25	-	1.62	-	V	Output High
	-	0.33	-	0.25	-	0.18	V	Output Low
Tri-State Mode (Input to Pin 1)	Enable	0.7 x VDD	-	0.7 x VDD	-	0.7 x VDD	V	
	Disable	-	0.3 x VDD	-	0.3 x VDD	-		0.3 x VDD
Stand by Current		3		3		3	uA	
Output Loading (CMOS)		15		15		15	pF	
Startup Time		20		20		20	mSec	
Aging		$\pm 3$		$\pm 3$		$\pm 3$	ppm	@ 25°C, First Year
Storage Temp. Range	-55	125	-55	125	-55	125	°C	
FREQ. STABILITY vs. TEMP. RANGE		$\pm 20$ ppm		$\pm 25$ ppm		$\pm 50$ ppm		
	-10~+60	Available		Available		Available		
	-20~+70	Available		Available		Available		
	-40~+85	Conditional		Available		Available		

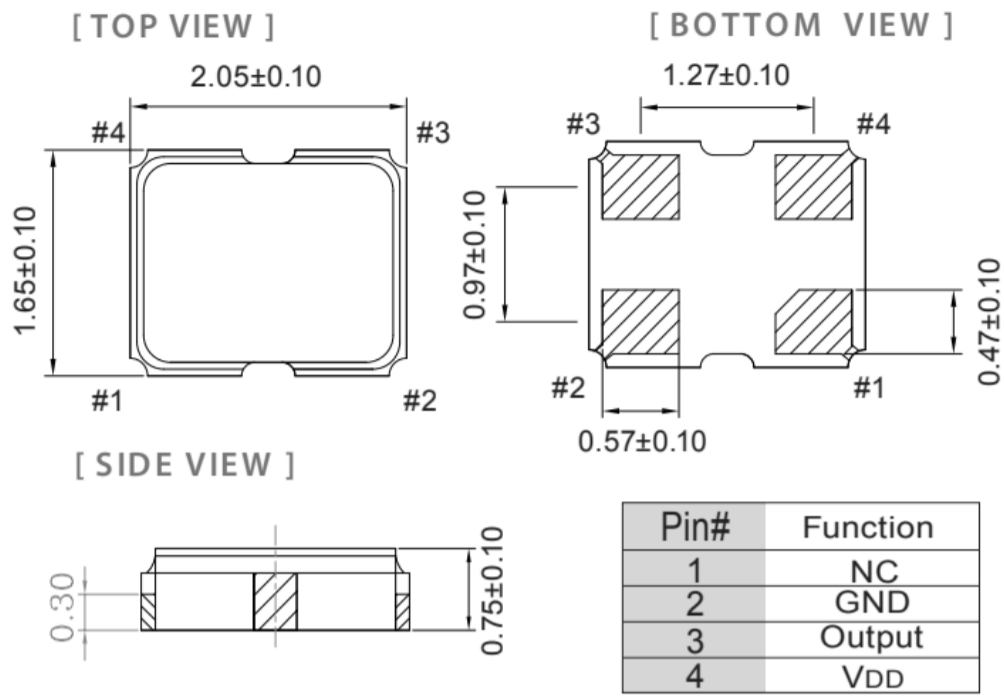
**Note: not all combination of options are available. Other specifications may be available upon request.**

## Reliability

Parameter	Condition
Test	IEC60068, GJB360B
Mechanical Stress Test	IEC60068, GJB360B
EMC Test (ESD)	IEC61000, JESD22
Solderability	EIA/JESD22-B102-C
Contact Pads	Gold over Nickel
RoHS	RoHS Directive 2011/65/EU Annex II Recasting 2002/95/EC

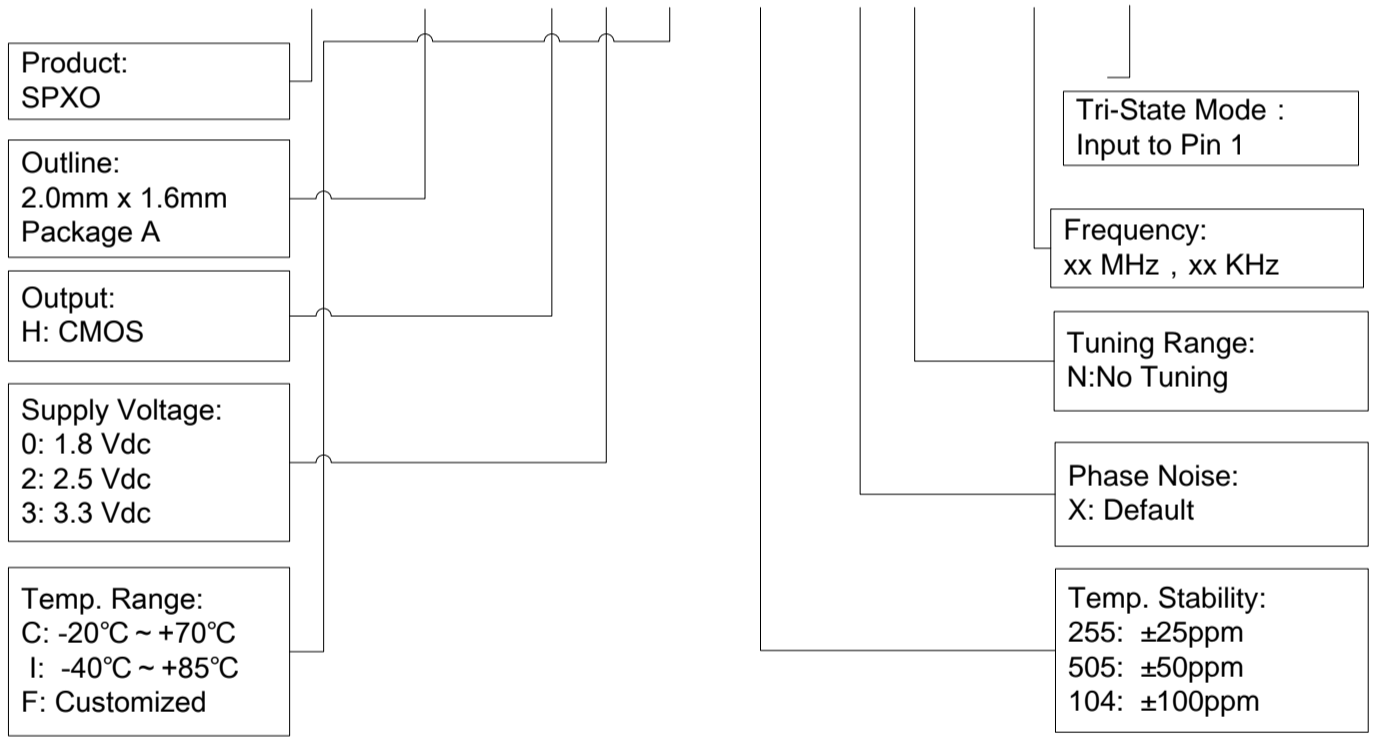
## Outline Dimension & Pin Connections

Unit:  
mm



## Ordering Guide

**BS2016A X X X XXX X XXX.XX X**



**Example: BS2016AD3I505CN20**

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