

## Features

- Small size (7.0\*5.0mm)
- SMD
- Low Jitter

## Applications

- CPU , Graphics , Multimedia A / V clocks
- MPEG / DVD / HDTV clocks
- Laser engine pixel / set - top clocks
- SONET / SDH / ATM clocks
- Fast Ethernet and Gigabit Ethernet clocks



## BS0507E Series

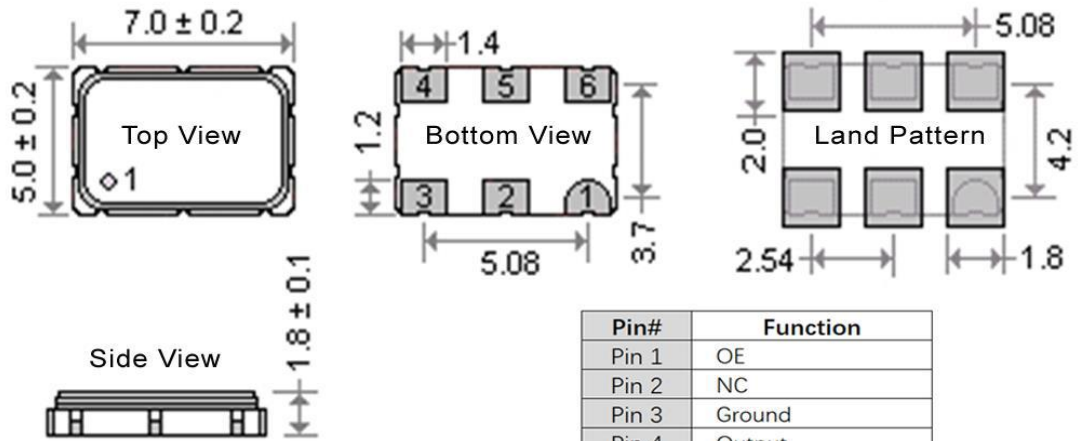
Parameter	Value						Unit	Conditions
Supply Voltage ( VDD )	+2.5 V $\pm$ 10%			+ 3.3 V $\pm$ 10%				
Output Type	CMOS		LVDS		LEPECL			
Available Frequency Range	10 ~ 250		10 ~ 1500		10 ~ 1500		MHz	
Load	15 pF		50 $\Omega$		100 $\Omega$			
Current Consumption (Max.)	10~50MHz: 30		10~250MHz: 50		10~250MHz: 30		mA	VDD = +3.3V
	50~150MHz: 38		250~750MHz: 55		250~750MHz: 35		mA	VDD = +3.3V
	150~250MHz: 48		750~1500MHz: 60		750~1500MHz: 40		mA	VDD = +3.3V
Current with Output Disable	16 typ.		16 typ.		16 typ.		mA	
Output Logic " High " , " 1 "	90 % VDD		Vdd-1.03 min. Vdd-0.6 max.		1.4V Typical 1.6V max.		V	
Output Logic " Low " , " 0 "	10 % VDD		Vdd-1.85 min. Vdd-1.6 max.		1.1V Typical 0.9V max.		V	
Rise Time ( Tr ) / Fall Time ( Tf )	1.5 typ.		0.2 typ.		0.2 typ.		nsec	
	3.0 max.		0.5 max.		0.4 max.			
	10%~90% waveform		20%~80% waveform		20%~80% waveform		nsec	
Frequency Stability over Operating Temperature Range	$\pm$ 25 / $\pm$ 50 / $\pm$ 100						ppm	-20°C to +70°C
	$\pm$ 25 / $\pm$ 50 / $\pm$ 100						ppm	-40°C to +85°C
Output Load	15						pF	
Current with Output Disable	16 ( typ. )						mA	
Duty Cycle	50 % $\pm$ 5%						-	
Start -up Time	10 m sec. max.						ms	
Storage Temperature	- 55°C~+125°C						°C	
Aging	$\pm$ 2 ppm ( max. ) first year ; $\pm$ 10 ppm ( max. ) over 10 years						ppm	at Ta=+25°C
Output Enable	200(max)						nsec	
Disable Time	50(max)						nsec	
OE Control on Pad 1 (Open connection prohibit)	70% of VDD (min.) to enable output.						-	
	30% of VDD (max.) to disable output.						-	
Output Enable/Disable Time	200 ns max. / 50 ns max.						-	
RMS Jitter	0.8ps typ.						ps	12KHZ~ 20MHZ
Phase Noise [ dBc / Hz (typ.)]	Offset	10Hz	100Hz	1KHz	10KHz	100KHz	1MHZ	10MHZ
	156.250 MHz	-55	-85	-109	-116	-118	-139	-146
	622.08 MHz	-48	-85	-101	-102	-103	-124	-133

## Reliability

Parameter	Condition
Temperature Stress 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

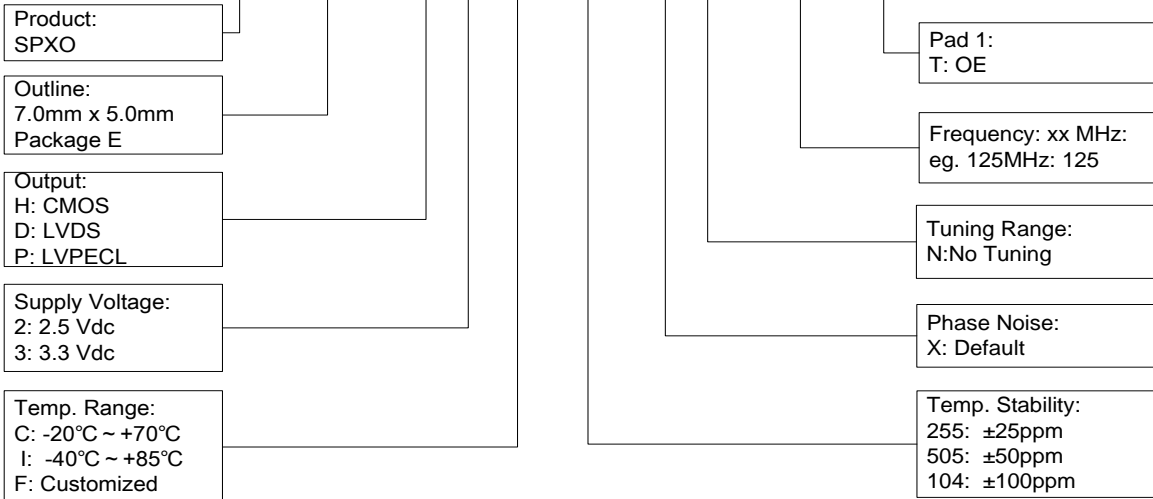
Unit: mm



Pin#	Function
Pin 1	OE
Pin 2	NC
Pin 3	Ground
Pin 4	Output
Pin 5	Comp. Output / NC
Pin 6	Vcc

## Ordering Guide

**BS 0507E X X X XXX X X XX.XX X**



**Example: BS0507EH3I505XN125**

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