7x5mm Spread Spectrum SMD Oscillator S7SC

(former FSS73S Series)

DATASHEET

- EMI Reduction
- Temperature Ranges to -40ºC to +85ºC
- Supply Voltage: 3.3V

ELECTRICAL CHARACTERISTICS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range (F_O)	1 ~ 200MHz
Operating Temperature Range	-40 ~ +85ºC
Storage Temperature Range (T_{STG})	-55 ~ +125°C
Supply Voltage (V_{DD})	3.3V±10%
Frequency Stability[2]	±50PPM (Standard)
Input Current (I_{DD}) 1 ~ <50MHz 50 ~ <80MHz 80 ~ <100MHz 100 ~ 200MHz	 20mA 25mA 30mA 40mA
Standby Input Current	10µA
Output Symmetry (50% V_{DD} level)	40% ~ 60%
Rise/Fall Time (10%/90% V_{DD} Levels) (T_R/T_F) 13 ~ <50MHz 50 ~ <80MHz 80 ~ <100MHz 100 ~ 160MHz >160 ~ 200MHz	 10nS 8nS 5nS 4nS 3nS
Output Voltage (V_{OL}) (V_{OH})	10% V_{DD} 90% V_{DD} Min
Spread Spectrum Function Center Spread Down Spread	 ±0.125% ~ ±2% -0.5% ~ 4%
Modulation Frequency	30 ~ 40kHz
Output Load (HCMOS)	15pF
Start-up Time (T_S)	10mS
Output Disable Time [1]	100nS
Output Enable Time [1]	10mS

ENABLE / DISABLE FUNCTION	
Pin1	Output (pin 3)
OPEN [1]	Active
'1' Level $V_{IH} \geq 70\%V_{DD}$	Active
'0' Level $V_{IL} \leq 30\%V_{DD}$	High Z

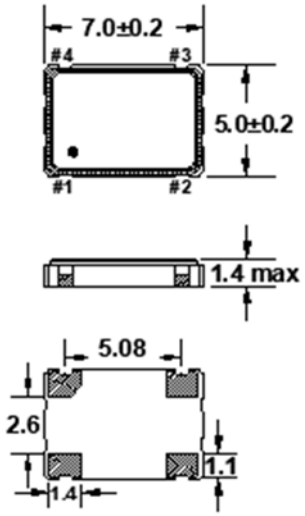
- Available Options by Stability & Operating Temp

Frequency Stability[2]	Operating Temperature (ºC)	Frequency Range (MHz)
±50PPM	-40 ~ +85	1 ~ 200.000
±25PPM	0 ~ +70	1 ~ 200.000
±25PPM	-40 ~ +85	1 ~ 200.000

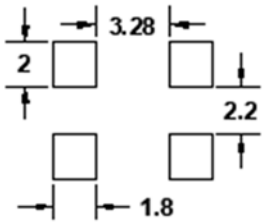
[1] An internal pull-up resistor from pin 1 to pin 4 allows active output if pin 1 is left open.
[2] Inclusive of 25°C tolerance, operating temperature range.

Title / Description: S7SC SERIES STANDARD SPECIFICATIONS			
Drawing Number: S7SC-DOC-1			**Size:** A
Part Number:			**Cage:** 61429
Draftsperson: BEC	**Approved:** MAJ		**Revision Date:** 09/10/2019

DIMENSIONS / MECHANICAL SPECIFICATIONS



Recommended Solder Pad Layout



Dimensions in mm

Pin Connections

#1 E/D	#3 Output
#2 GND	#4 V_{DD}

Maximum Soldering Temp / Time	260°C / 10 Seconds x 2
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au over Ni
Seal Method	Seam
Lead (Pb) Free	Yes
ROHS/REACH Compliant	Yes

Notes:
*A 0.01µF capacitor should be placed between V_{DD} (Pin 4) and GND (Pin2) to minimize power supply line noise.
*Dimensional drawing is for reference to critical specifications defined by size measurements.
Certain non-critical visual attributes, such as side castellations, reference pin shape, etc. may vary.

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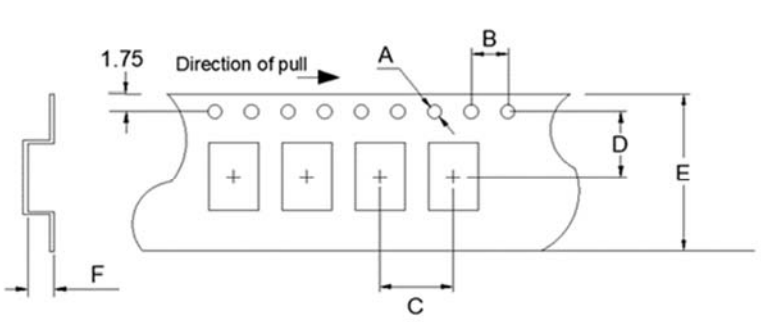
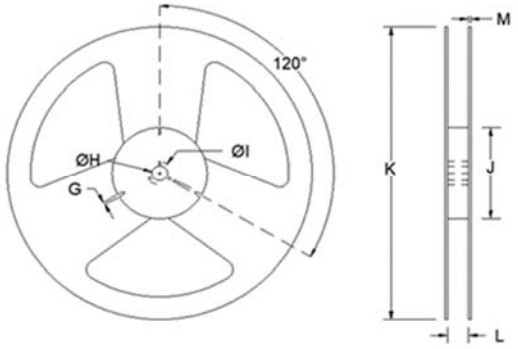
Tape Specifications (millimeters)								Reel Specifications (millimeters)						
A	B	C	D	E	F	Reel Qty		G	H	I	J	K	L	M
Ø1.5	4.0	8.0	7.5	16.0	2.15	-T1 = 1,000 -T2 = 2,000		2.0	Ø13	Ø21	Ø80	Ø255	17.5	2.0





Available Options & Part Identification*

Example: F S7S C B M 25.0

F	S7S	C	B		M	25.0
Fox	**Model Number**	**Voltage**	**Center Spread**	**Down Spread**	**Operating Temperature**	**Frequency**
		C = 3.3V±10%	N = ±0.125%	P = -0.25%	C = 0 to +70ºC	
			A = ±0.25%	G = -0.5%	**M = -40 to +85°C**	
			B = ±0.5%	H = -1%		
			C = ±0.75%	J = -1.5%		
			D = ±1%	K = -2%		
			E = ±1.5%	L = -3%		
			F = ±2%	M = -4%		

*Not all frequencies in the frequency range available.

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