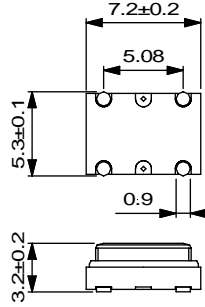
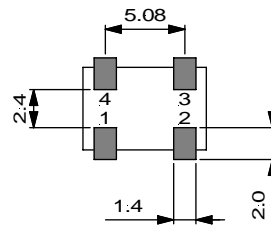
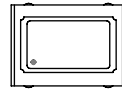


ULTRA MINIATURE SURFACE MOUNT TCXO
DFA S2-KO / LO / UO

KEY FEATURES
10 to 50 MHz
Miniature size
Analogue temperature compensation
APPLICATIONS
Mobile communications/Microwave



Function	DFA S2
NC or V control	1
GND	2
Output	3
Vcc	4



PC board footprint

TYPE	DFA S2-KO	DFA S2-LO	DFA S2-UO
Frequency Range	10 to 50 MHz	10 to 50 MHz	10 to 50 MHz

ELECTRICAL SPECIFICATIONS	DFA S2-KO	DFA S2-LO	DFA S2-UO
supply voltage	5 V ± 5 %	3.3 V ± 5 %	3.0 V ± 5 %
supply current (no load)	≤ 2 mA	≤ 2 mA	≤ 2 mA
output load	Clipped sine wave 10 kΩ//10 pF	Clipped sine wave 10 kΩ//10 pF	Clipped sine wave 10 kΩ//10 pF
high/low levels or output amplitude	≥ 1.0 V p-p	≥ 1.0 V p-p	≥ 1.0 V p-p
spurious	≤ -70 dBc	≤ -70 dBc	≤ -70 dBc
start-up	≤ 10 ms @ 4.75 V	≤ 10 ms @ 3.15 V	≤ 10 ms @ 2.85 V

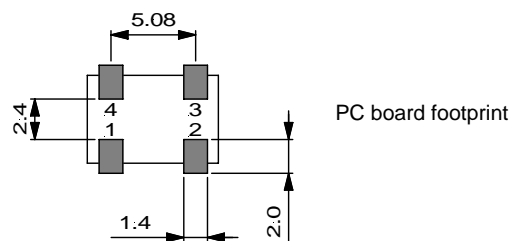
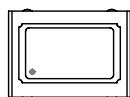
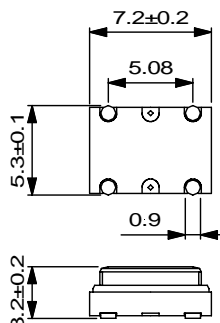
FREQUENCY STABILITY			detailed tolerances [ppm]				
type	temperature range	model code	stability versus:			ageing	calibration @ 25°C
			temperature	Vcc ± 5 %	load ± 10 %		
all types	0 to 70°C	B0.5	≤ ± 0.5	≤ ± 0.3	≤ ± 0.1	≤ ± 1	≤ ± 1
	-20 to 70°C	C0.5	≤ ± 0.5				
	-40 to 85°C	E0.5	≤ ± 0.5				
	-40 to 85°C	E1	≤ ± 1.0				
remarks			C0.2 only available up to 20 MHz ageing is 1 st year at 25°C				

OPTIONS	CODE	DFA S2-KO	DFA S2-LO	DFA S2-UO
voltage control (positive slope)	V	≥ ± 5 ppm, ≤ ± 15 ppm 2.5 V ± 2 V	≥ ± 5 ppm, ≤ ± 15 ppm 1.65 V ± 1.35 V	≥ ± 5 ppm, ≤ ± 15 ppm 1.5 V ± 1.0 V

ORDERING CODE	type + option code + frequency + model code
Example	DFA S2-LOV 12.8 MHz B0.5

ULTRA MINIATURE SURFACE MOUNT TCXO
DFA S2-KH (5 V) & LH (3.3 V)

FEATURES
5 to 52 MHz
HCMOS output
Analogue temperature compensation
APPLICATIONS
SDH/Sonet/Microwave



Function	DFA S2
E / D or V control	1
GND	2
Output	3
Vcc	4

TYPE	DFA S2-KHZ	DFA S2-LHZ
Frequency Range	5 to 52 MHz	

ELECTRICAL SPECIFICATIONS	DFA S2-KHZ	DFA S2-LHZ
supply voltage	5 V ± 5 %	3.3 V ± 5 %
supply current (no load)	≤ 20 mA	≤ 10 mA
output load	HCMOS 15 pF or 2 TTL	HCMOS 15 pF or 2 TTL
duty cycle @ 50% level	45/55...55/45 %	45/55...55/45 %
rise/fall times (10 to 90 %)	≤ 5 ns	≤ 5 ns
high/low levels or output amplitude	≥ 4.5 V/ ≤ 0.5 V	≥ 2.8 V/ ≤ 0.3 V
start-up	≤ 10 ms @ 4.75 V	≤ 10 ms @ 3.15 V
tri-state control on pin 1	high or open = enable, low = high Z	high or open = enable, low = high Z

FREQUENCY STABILITY			detailed tolerances [ppm]				
type	temperature range	model code	temperature	stability versus:			calibration @ 25°C
				Vcc ± 5 %	load ± 10 %	ageing	
all types	0 to 70°C	B0.5	≤ ± 0.5	≤ ± 0.1	≤ ± 0.1	≤ ± 1	≤ ± 1
	-20 to 70°C	C0.5	≤ ± 0.5				
	-20 to 70°C	C0.2	≤ ± 0.2				
	-40 to 85°C	E0.5	≤ ± 0.5				
	-40 to 85°C	E1	≤ ± 1.0				
remarks			C0.2 only available up to 20 MHz ageing is 1 st year at 25°C				

OPTIONS	CODE		
voltage control (positive slope)	V	≥ ± 5 ppm, ≤ ± 15 ppm 2.5 V ± 2 V	≥ ± 5 ppm, ≤ ± 15 ppm 1.65 V ± 1.35 V
remark	No tri-state function with this option (code LHV and KHV)		

ORDERING CODE	type + option code + frequency + model code
Example	DFA S2-LHZ 44.736 MHz E1