Code : MXO37/14P-F58G5S-100

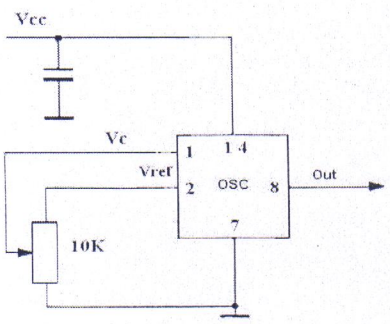
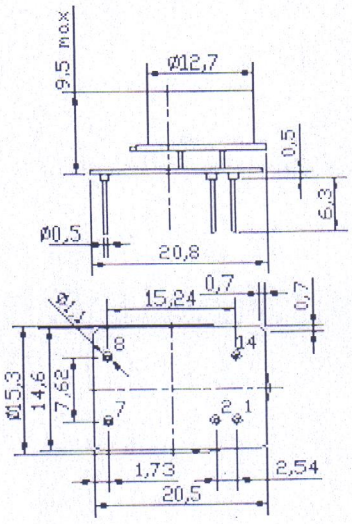
Spec. 1872S-37/14P-F58G5S-100
Rev. 22.03.2019

#	OCXO Specification	Sym.	Condition	Value Min.	Value Typ.	Value Max.	Unit	Included in the test data
1.1	**Nominal Frequency**	f_0			100.000000		MHz	
1.2	Initial tolerance	$(f- f_0)/f_0$	at +25°C, $V_c=V_{c0}$	-0.2		0.2	ppm	+
	RF output							
2.1	Wave form				Sine-wave			
2.2	Level	L_S		+6	+8		dBm	+
2.3	Harmonics level	L_H				-25	dBc	
2.4	Load	R_L		45	50	55	Ohm	
	Frequency control							
3.1	Input impedance	R_{in}			11 5		kOhm pF	
3.2	Voltage range	V_C		0		4.2	V	
3.3	Preset control voltage	V_{C0}	disconnected V_c pin	2.0	2.1	2.2	V	
3.4	Slope				positive			
3.5	Frequency turning range	$(f_L- f)/f$	V_c=0 V			-1	ppm	+
		(f-f)/f	$V_c=V_{c0}$		0		ppm	
3.6		$(f_H- f)/f$	$V_c= V_{ref}$	1			ppm	+
3.7	Reference voltage	V_{ref}		4.1	4.2	4.3	V	
3.8	Output resistance of Vref				91		Ohm	
	Power supply							
4.1	Input Voltage	V_{CC}		4.75	5.0	5.25	V	
4.2	Warm-up current	I_{ST}	Vcc=5V	120		220	mA	
4.3	Continuous current	I_{CC}	at +25°C, Vcc=5V			50	mA	
4.4	Frequency warm-up time	τ_F	to Δf/f=1e-7 at +25°C			90	s	
	Frequency stability							
5.1	vs. temperature	df/dT	ref 25°C			±50	ppb	+
5.2	vs. supply voltage	df/dV	ref Vcc typ.		±3	±5	ppb	
5.3	vs. load	df/dZ	5 % change			±5	ppb	
6.1	**SSB phase noise (static)**	L_{PH}	1 Hz			-55	dBc/Hz	+
			10 Hz			-95		
			100 Hz			-125		
			1 kHz			-155		
			10 kHz			-165		
			100 kHz			-165		
7.1	**Aging** per day	df/day	after 30 days of operation			±3	ppb	
	first year	df/year				±0.3	ppm	

Maximum ratings, environmental, mechanical conditions.

Power voltage	-0.5 to 6.0V
Control voltage	-1.0 to 9.0 V
Operating temperature range	-40°C to +85°C
Storage temperature range	-60°C to +85°C
Humidity	Non-condensing 95%
Mechanical Shock	Per MIL-STD-202, 30G, 11ms
Vibration	Per MIL-STD-202, 5G to 2000Hz
Soldering Conditions	Hand solder only – not reflow compatible 260°C 10s (on pins)
Washing Conditions	Washing with water or alcohol based detergent allowed only with final enough drying stage

Schematic connections



Physical dimensions