CFPS-37 SMD CLOCK OSCILLATORS

ISSUE 7; 1 NOVEMBER 2010 - RoHS 2002/95/EC

Description

- Standard 5 x 3.2 crystal oscillators
- Ceramic package with a seam sealed metal lid, hermetically sealed
- Please see our CFPS-9 or CFPS-12 for a 3.3 or 5.0V version of this package
- Please see our CFPS-67 for a low current draw version of this package
- MEMS capability: IQMS-512 series oscillators are the nearest equivalent MEMS model

Frequency Range

- 1.8 to 125MHz

Output Compatibility & Load

- CMOS
- Drive Capability 15pF max

Frequency Stabilities

- ±25ppm, ±50ppm, ±100ppm (inclusive of supply voltage and output load variations over the operating temperature range) Note: ±25ppm is not available over –40 to 85°C

Operating Temperature Ranges

- –10 to 70°C
- –40 to 85°C

Storage Temperature Range

- –55 to 125°C

Standby Operation

- Logic '1' (>70% V_S) to pad 1 enables oscillator output
- Logic '0' (<30% V_S) to pad 1 disables oscillator output and oscillator output goes to the high impedance state
- No connection to pad 1 enables oscillator output
- Standby Current: 10µA max

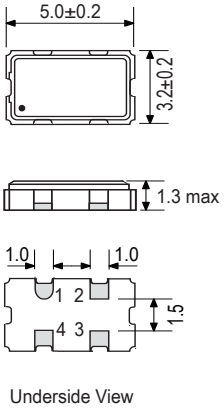
Environmental

- Shock: MIL-STD-202F, Method 213B: 1000G, 0.5ms, 1/2 sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20G (10Hz-2000Hz), 4hrs in 3 mutually perpendicular planes (total 12hrs)

Packaging

- Loose in bulk pack, 100pcs per pack
- Tape and reel in accordance with EIA-481-D, 1kpcs per reel (please see pages 372 & 373)

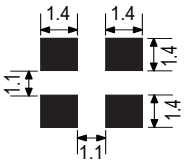
Outline (mm)



Underside View

Pad Connections
1. Standby Operation
2. GND
3. Output
4. +V_S

Solder Pad Layout



Ordering Information (*minimum required)

- Frequency*
- Model*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage

Example

- 10.0MHz CFPS-37
  CMOS ±50ppm -10 to 70C 2.5V

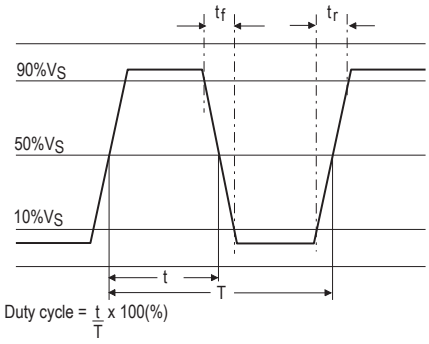
IQD Frequency Products Ltd, Station Road, Crewkerne, Somerset TA18 8AR, United Kingdom
+44 (0)1460 270200; Web: www.iqdfrequencyproducts.com
Americas - California, +1 (0)650 798 5047; Asia Pacific - Taiwan, +886 (0)2 8758 2283

Registration No. FS566088

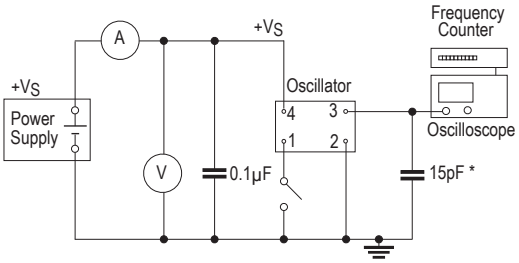
Electrical Specifications - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (t_r) (10-90%)	Fall Time (t_f) (90-10%)	Duty Cycle	Model Number
1.8 to 32.0MHz	±25ppm ±50ppm ±100ppm	2.5V±5%	10mA	5ns	5ns	45/55%	CFPS-37
>32.0 to 50.0MHz			20mA				
>50.0 to 80.0MHz						40/60%	
>80.0 to 125.0MHz			30mA	4ns	4ns		
Note: For other frequency/specification combinations, please contact our sales offices							

Output Waveform



Test Circuit



* Inclusive of jigging & equipment capacitance