

## Customer Part:



### Description

- 5 x 3.2mm crystal oscillator  
Ceramic package with a seam sealed metal lid, hermetically sealed
- Model CFPS-9
- Model Issue number 8
- Note: please be aware that devices supplied against this model may show slight cosmetic differences depending upon the frequency and specification, however all electrical details remain as per the model specification.

### Frequency Parameters

- Frequency 24.0MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $85.00^\circ\text{C}$
- Ageing  $\pm 3\text{ppm}$  max per year @  $25^\circ\text{C}$

### Electrical Parameters

- Supply Voltage  $3.3\text{V} \pm 0.3\text{V}$
- Current Draw  $20.000\text{mA}$

### Output Details

- Output Compatibility CMOS
- Drive Capability  $15\text{pF}$  max
- Rise and Fall Time  $10.0\text{ns}$  max
- Duty Cycle  $40/60\%$
- Start up time:  $10\text{ms}$  max  
 $0.8\text{ms}$  typ to 90% of final amplitude (under ideal conditions @  $25^\circ\text{C}$ )

### Output Control

- Enable/Disable Operation:  
Logic '1' ( $>70\%$  VS) to pad 1 enables oscillator output  
Logic '0' ( $<30\%$  VS) to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state  
No connection to pad 1 enables oscillator output  
Standby Current:  $10\mu\text{A}$  max,  $0.9\mu\text{A}$  typ @  $25^\circ\text{C}$

### Environmental Parameters

- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$
- Shock: MIL-STD-202F, Method 213B:  $1000\text{G}$ ,  $0.5\text{ms}$ ,  $1/2$  sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D:  $20\text{G}$  ( $10\text{Hz}$ - $2000\text{Hz}$ ),  $4\text{hrs}$  in 3 mutually perpendicular planes (total  $12\text{hrs}$ )

### Manufacturing Details

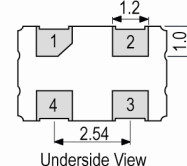
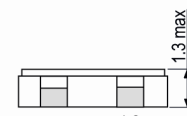
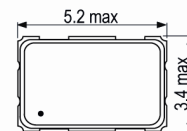
- RoHS Terminations NiAu
- RoHS Reflow Temp  $260^\circ\text{C}$   $10\text{s}$  max

### Compliance

- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

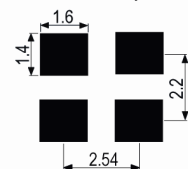


### Outline (mm)

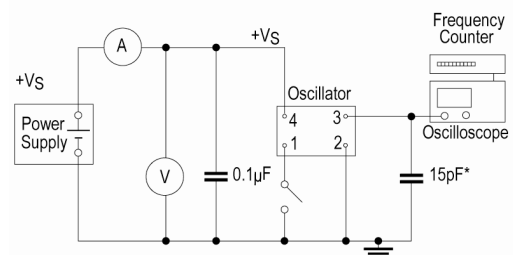


Pad Connections  
1. Enable/Disable  
2. GND  
3. Output  
4. +Vs

### Solder Pad Layout



### Test Circuit



\* Inclusive of jigging and equipment capacitance

### Sales Office Contact Details:

UK: +44 (0)1460 270200  
Germany: 0800 1808 443

France: 0800 901 383  
USA: +1.760.318.2824

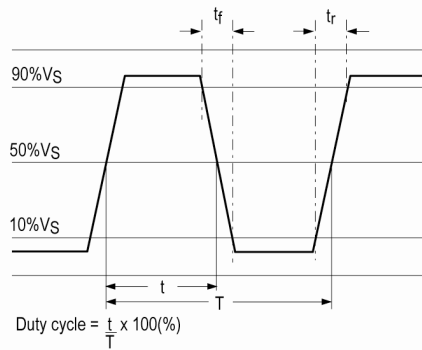
Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

### Customer Part:

#### Packaging Details

- Pack Style: Bulk      Loose in bulk pack  
Pack Size: 100
- *Alternative packing option available*

### Wave Form



### Sales Office Contact Details:

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Germany: 0800 1808 443

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