

**Customer Part:**

**Description**

- 32.768kHz output crystal oscillator in a ceramic package, hermetically sealed with a seam sealed metal lid. Suitable for real time clock applications.
- Model CFPS-102
- Model Issue number 4

**Frequency Parameters**

- Frequency 32.7680kHz
- Frequency Stability  $\pm 25.00\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $85.00^\circ\text{C}$
- Ageing  $\pm 3\text{ppm}$  max per year

**Electrical Parameters**

- Supply Voltage  $1.8\text{V} \pm 5\%$
- Current Draw  $1.500\text{mA}$

**Output Details**

- Output Compatibility CMOS
- Drive Capability  $15\text{pF}$  max
- Rise and Fall Time  $50.0\text{ns}$  max
- Duty Cycle  $40/60\%$

**Output Control**

- Standby 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.
- Start-up Time:  $35\text{ms}$  max  
 $2\text{ms}$  typ to 90% of final amplitude (under ideal conditions @  $25^\circ\text{C}$ )
- Standby Current:  $20\mu\text{A}$  max,  $1.7\mu\text{A}$  typ @  $25^\circ\text{C}$

**Environmental Parameters**

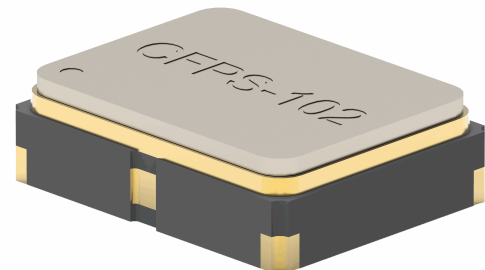
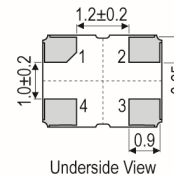
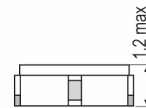
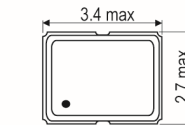
- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$
- Shock: MIL-STD-883F, Method 2002.4:  $1500\text{G}$ ,  $0.5\text{ms}$ , 3 times in each of 3 mutually perpendicular planes
- Vibration: MIL-STD-883F, Method 2007.3:  $20\text{G}$  ( $20\text{Hz}$ - $2000\text{Hz}$ ),  $1.52\text{mm}$  amplitude,  $20\text{mins}$  in 3 mutually perpendicular planes (total 4hrs)

**Compliance**

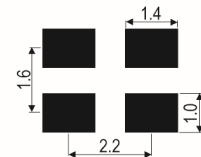
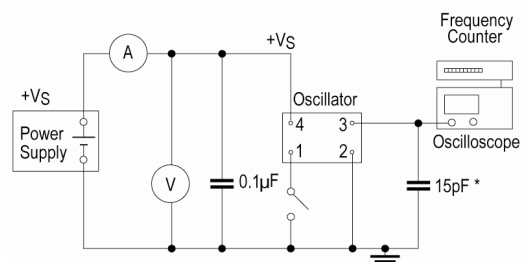
- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

**Packaging Details**

- Pack Style: Reel Tape & reel in accordance with EIA-481-D
- Pack Size:  $1,000$
- *Alternative packing option available*


**Outline (mm)**


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

**Solder Pad Layout**

**Test Circuit**


\* Inclusive of jigging and equipment capacitance

**Sales Office Contact Details:**

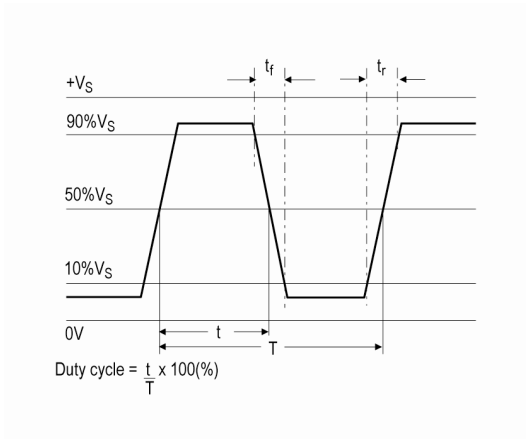
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Wave Form



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