

ISSUE 1; May 2016

Description

- Crystal oscillator hermetically sealed in a 3.2 x 2.5mm ceramic package with a seam sealed metal lid

Frequency Parameters

- Frequency: 40.0MHz
- Frequency Stability: $\pm 20.00\text{ppm}$
- Ageing: $\pm 5\text{ppm max / yr @ } 25^\circ\text{C}$
- Ageing: $\pm 5\text{ppm max per year @ } 25^\circ\text{C}$

Electrical Parameters

- Supply Voltage: $2.5\text{V} \pm 5\%$

Operating Temperature Ranges

- 10 to 85°C

Output Details

- Output Compatibility: CMOS
- Drive Capability: 15pF

Output Control

- Tri-State Operation:
 - Logic '1' ($\geq 70\% V_s$) to pad 1 enables oscillator output
 - Logic '0' ($\leq 30\% V_s$) to pad 1 disables oscillator output
 - No connection to pad 1 enables oscillator output
 - (Note: Connect pad 1 to +Vs if tri-state is not used)

Noise Parameters

- Phase Noise (typical):
 - 69dBc/Hz @ 10Hz
 - 103dBc/Hz @ 100Hz
 - 128dBc/Hz @ 1kHz
 - 141dBc/Hz @ 10kHz
 - 150dBc/Hz @ 100kHz
 - 158dBc/Hz @ 10MHz
- Phase Jitter (12kHz - 20MHz): 0.5ps max

Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Drop: 120cm drop (3 times) onto hard wooden board
- Vibration: MIL-STD-883, Method 2007, Condition A: 1.5mm amplitude, 10Hz-55Hz, full sine wave, 2min in 3 mutually perpendicular planes, duration 2hrs each plane (total 6hrs)

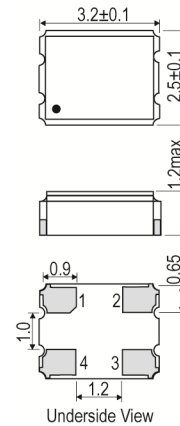
Compliance

- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Pack Style: Reel Tape and reel in accordance with
- Pack Size: 1,000 EAI-481-D

Outline (mm)



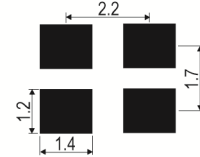
Pad Connections

- Tri-State Operation
- GND
- Output
- +Vs

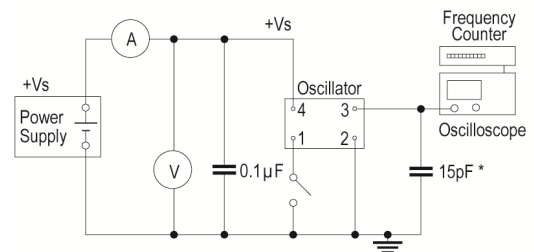
Notes:

- Do not connect inductor between pad 2 & GND
- Connect bypass capacitor 0.01μF to 0.1μF between +Vs & GND

Solder Pad Layout

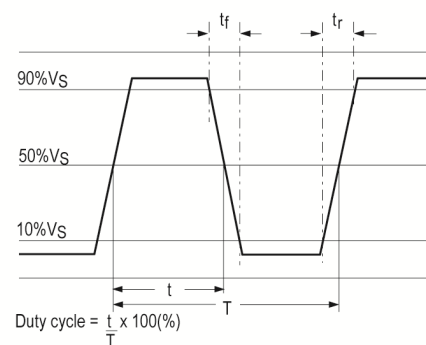


Test Circuit



* Inclusive of jigging and equipment capacitance

Wave Form



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Electrical Specification - maximum limiting values 2.50V \pm 5%

Frequency	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
	$^{\circ}$ C	ppm	mA	ns	%
40.0MHz	-10 to 85	\pm 20.00	9	10	45/55%

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