

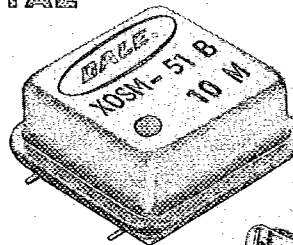


SURFACE MOUNT, HYBRID CRYSTAL CLOCK OSCILLATOR

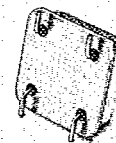
MODEL XOSM-51B, 240 Hz to 1.5 MHz; 4.0 MHz to 60.0 MHz

FEATURES

- HCMOS, CMOS, NMOS, TTL, LS-TTL, S-TTL Compatible
- Miniature size (.50" square) for greater packaging density
- Hermetically sealed package



ACTUAL
SIZE



SPECIFICATIONS

ELECTRICAL

Operating Temperature Range: 0°C to +70°C

Storage Temperature Range: -55°C to +125°C

Frequency Stability: (Inclusive of Calibration Tolerance at 25°C, Temperature Change, Input Voltage Change, Load Change, Aging, Shock and Vibration): ±.01% (±100 PPM)

Input Voltage: (V_{dd}) +5.0 ± 0.5 VDC

Input Current: 5 to 40 mA Typ. (see graph)

Rise Time: 10nS Max. (CMOS Levels), 6nS Max. (TTL Levels)

Fall Time: 10nS Max. (CMOS Levels), 6nS Max. (TTL Levels)

Logic '0' Level: 0.1 V_{dd} Max. CMOS, 0.4V Max. TTL

Logic '1' Level: 0.9 V_{dd} Min. CMOS, 2.4V Min. TTL

Logic '0' Sink Current: 16 mA Min.

Logic '1' Source Current: 0.4 mA Min.

Output Waveform: Squarewave, HCMOS, CMOS, NMOS, TTL, LS-TTL, S-TTL Compatible, Waveform Symmetry (0.5 V_{dd} CMOS or 1.4V TTL Levels): 50 ± 10%

Output Load: 50 pF HCMOS or 1-10 TTL Loads (3 TTL Max. below 4 MHz)

Environmental:

Temperature Cycle: -55°C to + 85°C, 3 cycles

Shock: 1000 G's 0.35 millisecond, 1/2 sine wave, 3 shocks each plane

Vibration: .06 D.A., 10-55 Hz, 35 G, 55-2000 Hz

Humidity: 85% relative humidity @ 85°C, 240 Hours

Mechanical:

Hermetically Sealed Package: Leak rate less than 2 x 10⁻⁸ atmosphere cc/sec. of helium

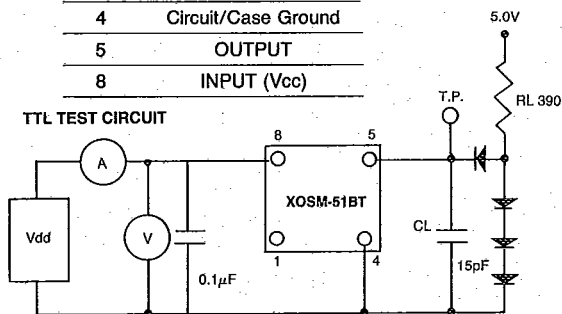
Marking Ink: Epoxy, solvent resistant

Solvent Resistance: Isopropyl alcohol, Trichloroethane, Freon TMC

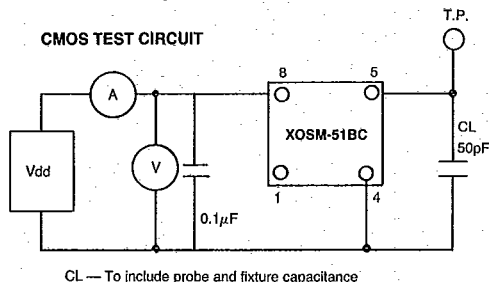
Terminal Solderability: Per MIL-STD-202, Method 208C

PIN	CONNECTION
1	N/C
4	Circuit/Case Ground
5	OUTPUT
8	INPUT (V _{cc})

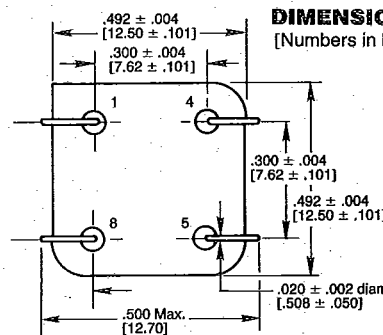
TTL TEST CIRCUIT



CMOS TEST CIRCUIT

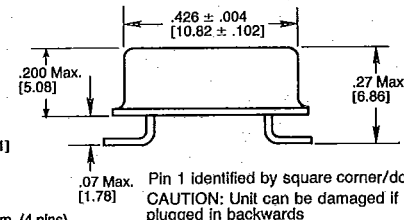


CL — To include probe and fixture capacitance



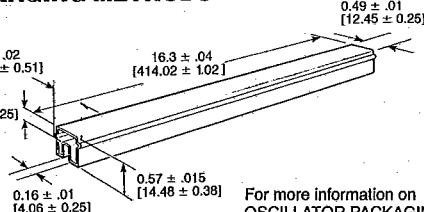
DIMENSIONS

[Numbers in brackets indicate millimeters]



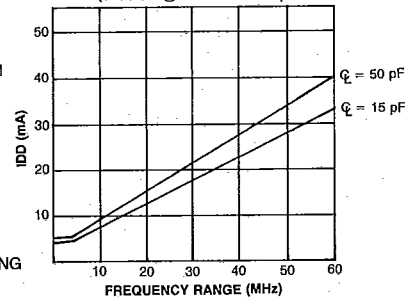
Pin 1 identified by square corner/lot
CAUTION: Unit can be damaged if plugged in backwards

PACKAGING METHODS



For more information on
OSCILLATOR PACKAGING
write or phone.

FREQ — IDD CHARACTERISTICS (TYPICAL @ VDD = 5.0 VDC)



HOW TO ORDER

XOSM-51

PART NO. CODE

B

FREQ. ACCURACY

- A = .005%
- B = .01% (Std. Tol.)
- C = .05%

MEASUREMENT METHOD

- C: C-MOS Level
- T: TTL Level

10

FREQ./MHZ

Contact factory for other models, logic families, stabilities and temperature ranges.

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