OC-32 Series

3.2X2.5X1.2mm / SMD / HCMOS/TTL Oscillator

Lead-Free
RoHS Compliant

C A L I B E R
Electronics Inc.

PART NUMBERING GUIDE

Environmental/Mechanical Specifications on page F5

OC-32A- 100 48 A T - 30.000MHz

Package
OC-32 = 3.3Vdc
OC-32A = 1.8Vdc
OC-32B = 2.5Vdc

Inclusive Stability
100= +/-100ppm, 50= +/-50ppm, 30= +/-30ppm, 25= +/-25ppm, 20= +/-20ppm

Pin One Connection
T = Tri State Enable High

Output Symmetry
Blank = 40/60%, A = 45/55%

Operating Temperature Range
Blank = -10°C to 70°C, 27 = -20°C to 70°C, 48 = -40°C to 85°C

ELECTRICAL SPECIFICATIONS

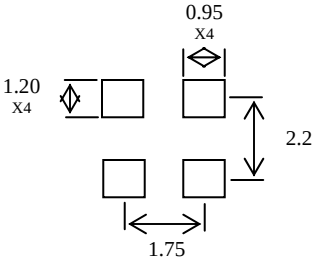
Revision: 2006-C

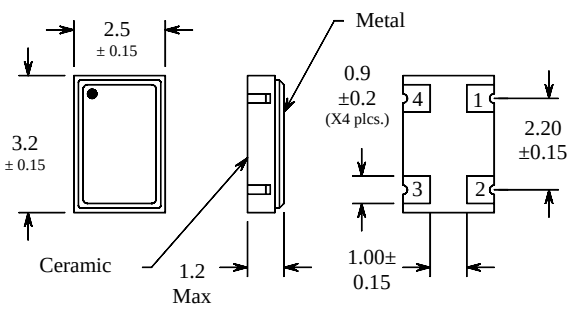
Frequency Range		1.544MHz to 80.000MHz / **32.768kHz (@ 3.3V)**
Operating Temperature Range		-10°C to 70°C / -20°C to 70°C / -40°C to 85°C
Storage Temperature Range		-55°C to 125°C
Supply Voltage		A=1.8Vdc / B=2.5Vdc / BLANK=3.3Vdc ±10%
Input Current	1.544MHz to 32.000MHz **and 32.768kHz** 36,001MHz to 70.000MHz 70.001MHz to 125.000MHz	2mA Maximum (3.3v, 2.5v, 1.8v) 3mA Maximum (3.3v, 2.5v, 1.8v) 4mA Maximum (3.3v, 2.5v, 1.8v)
Frequency Tolerance / Stability	Inclusive of Operating Temperature Range, Supply Voltage and Load	±100ppm, ±50ppm, ±30ppm, ±25ppm, ±20ppm, **(±50ppm for 32.768kHz only)**
Output Voltage Logic High (Voh)	w/HCMOS or TTL Load	90% of Vdd Min. / Ioh=-8mA
Output Voltage Logic Low (Vol)	wHCMOS or TTL Load	10% of Vdd Max. / Iol=8mA
Rise / Fall Time	10% to 90% of Waveform w/HCMOS Load; 0.4Vdc to 2.4V w/TTL Load / 6nSec Max.	
Duty Cycle	@1.4Vdc w/TTL Load; @50% w/HCMOS Load @1.4Vdc w/TTL Load or w/HCMOS Load	50 ±10% (Standard) 50±5% (Optional)
Load Drive Capability		15pF HCMOS Load
Pin 1 Tristate Function		Pin 1 = H or Open / Output Active at pin 3 Pin 1 = L / High Impedance at pin 3
Aging (@ 25°C)		±5ppm / year Maximum
Start Up Time		10mSeconds Maximum
Absolute Clock Jitter		±250pSeconds Maximum
One Sigma Clock Jitter		±50pSeconds Maximum

NOTE: A 0.01uF bypass capacitor should be placed between Vdd (Pin 4) and GND (Pin 2) to minimize power supply line noise.

MECHANICAL DIMENSIONS

Recommended Solder Pattern





Marking Guide

All Dimensions in mm.

Line 1: A, B or Blank - Frequency
Line 2: CEI YM

A = Voltage designator
CEI = Caliber Electronics Inc.
YM = Date Code (Year / Month)

Pin 1: Tri-State
Pin 2: Case Ground
Pin 3: Output
Pin 4: Supply Voltage (3.3v, 2.5v, 1.8v)