

Features:

- Standard miniature surface mount footprint
- Frequency range 1.5-80 MHz
- Frequency stability: 50 ppm standard;
100 ppm and 25 ppm available
- CMOS/TTL compatible
- Tri-State Output standard
- Tape and reel packaging (16mm)
- PCMCIA Type II & III compatible
- Low voltage option available



The CTS Reeves CB3 is a ceramic packaged Clock oscillator offering reduced size and enhanced stability. The small size means it is perfect for any application. The enhanced stability means it is the perfect choice for today's communications applications that require tight frequency control. Low voltage options are also available. Tristate control is also standard.

Specifications:

PARAMETER	SYMBOL	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
Frequency Range	F		1.5		80.0	MHz
Stability	$\Delta F/F$	*			25, 50, or 100	ppm
Operating Temp.	T _A	Commercial Industrial	0 -40		+70 +85	°C
Supply Voltage	V _{CC}	Operating Voltage Options	4.5 3.0	5.0 3.3	5.5 3.6	V
Supply Current	I _{CC}	≤20.0 MHz 5.0 Volt Supply 3.3 Volt Supply >20.0 MHz 5.0 Volt Supply 3.3 Volt Supply			25 12 50 40	mA
Output Load		1.5 MHz to 50.0 MHz 50.1 MHz to 80.0 MHz			50 30	pF
Output Voltage Level	V _{OH}	CMOS Load TTL Load	V _{CC} -0.5 V _{CC} -0.6			V
	V _{OL}	CMOS or TTL Load			0.4	V
Output Current	I _{OH}	V _{OH} = 3.9V			+16	mA
	I _{OL}	V _{OL} = 0.4V			-16	mA
Symmetry	Duty	1.5 MHz to 60.0 MHz 60.1 MHz to 80.0 MHz	45 40		55 60	%
Rise & Fall Time	T _r , T _f	≤20.0 MHz >20.0 MHz to <50.0 MHz 50.0 MHz to 80.0 MHz			10 8 5	ns
Enable Input Voltage (or NC)	V _{IH}		2.0			V
Disable Input Voltage	V _{IL}				0.8	V
Tristate Leakage Current	I _Z	V _{IL} = 0.8V			0.05	mA

Test Conditions

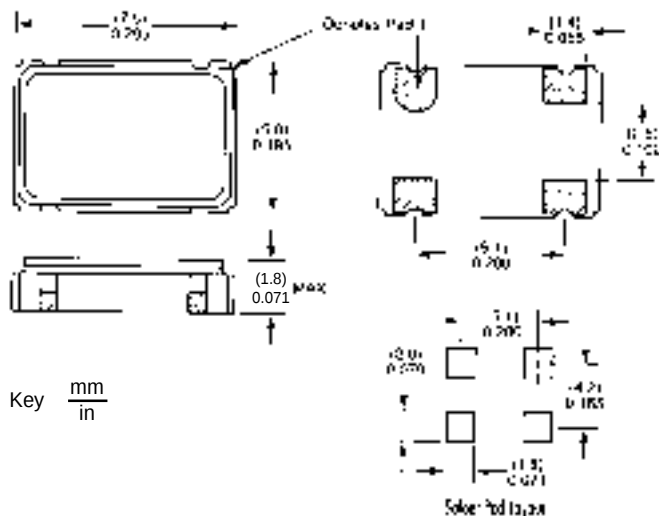
Symmetry	50% of waveform
Load	50pF (30 pF above 50 MHz)
Rise & Fall Time	10%—90% of waveform

Pad Connections

PAD	FUNCTION
1	Output Enable
2	Cover/CKT GND
3	Output
4	Vcc

Tristate Truth Table

Pin 1 (Enable)	Pin 3 (Output)
Floating (No Connect)	Enabled (Oscillating)
Logic 1	Enabled (Oscillating)
Logic 0	Disabled (Tristate)



Environmental Characteristics:

Storage Temperature: -55°C to +125°C
Temperature Cycle: 25 cycles, -55°C to +125°C
per MIL-STD-883, Method 1010
Constant Acceleration: 5000g's, 0.5mS,
3 shocks per direction,
per MIL-STD-883, Method 2002
Sinusoidal Vibration: 0.06" D.A., 10 to 55 Hz and
30g's, 55 to 2000 Hz,
3 cycles per direction,
per MIL-STD-883, Method 2007
Random Vibration: 20G_{RMS}, 20 to 2000 Hz,
per MIL-STD-883, Method 2026
Lead Integrity: per MIL-STD-883,
Method 2004 conditions B1 and B2
Hermeticity: 3 x 10⁴ ATM-cc/sec,
per MIL-STD-883,
Method 1014 conditions B1 and B2
Moisture Resistance: 10 cycles, per MIL-STD-883,
Method 1014 with step 7 subcycle omitted

Corrosion Resistance: 24 hours, per MIL-STD-883,
Method 1009 condition A

Solderability: per MIL-STD-883,
Method 2003 or MIL-STD-202,
Method 208. Except 1 hr. Pre-conditioning

Quality: In accordance with MIL-1-45208

Resistance to Soldering Heat: per MIL-STD-202,
Method 210 conditions A and C

Marking Permanence: per MIL-STD-883, Method 2015

Thermal Resistance: ... per MIL-STD-883, Method 1012.1

Electrostatic Discharge Sensitivity: per MIL-STD-883,
Method 3015 ECL output models-> 4KV
(Class 2- not sensitive)
CMOS output models-> 2KV
(Class 1 - not sensitive)

Steady-State Life: ..1000 hrs. @ 125°C per MIL-STD-883,
Method 1005, disregarding frequency shift

Frequency Aging: <10 ppm shift in 30 days
@ 85°C ambient

Configuring The Part Number...

CB3  -   - 

Blank = 5.0V 2 = ± 100 ppm C = 0 to 70°C Frequency (MHz)
 LV = 3.3 Volt 3 = ± 50 ppm I = -40 to 85°C
 5 = ± 25 ppm