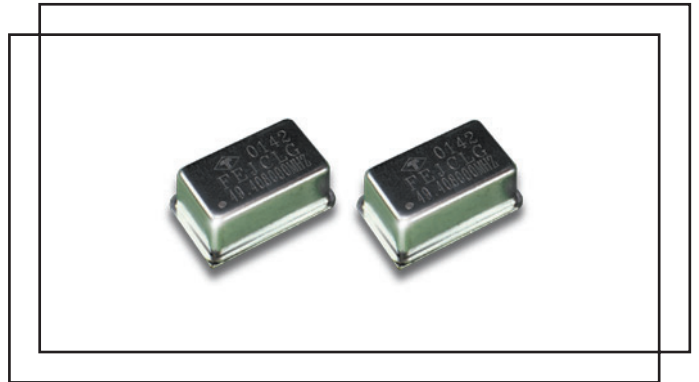


Type BJ clock oscillator 4 pin(14 pin DIL layout) (1.0 ~ 70)MHz

- # ± 10 ppm tolerance
- # standard and custom frequencies
- # +3.3Vd.c., +5.0Vd.c. supply

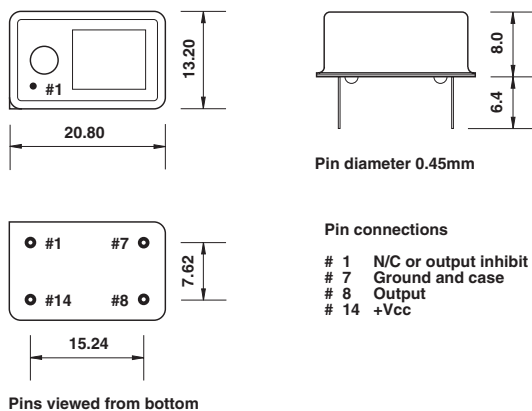


Electrical specification

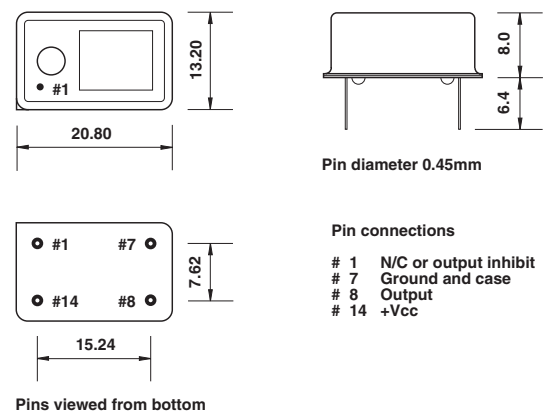
Case style	4 pin(14 pin DIL layout): (20.8 x 13.2)mm, height 8.0mm		
Frequency range	(1.0 ~ 70)MHz		
Stability *	$\pm(10 \sim 25)$ ppm, temperature range dependent		
Supply voltage V_{CC}		+3.3Vd.c.	+5.0Vd.c.
Supply current max.	(1.0 ~ 20)MHz	10mA	15mA
	(20 ~ 50)MHz	20mA	40mA
	(50 ~ 70)MHz	40mA	50mA
Rise and fall time max. **	(1.0 ~ 20)MHz	10ns	8ns
	(20 ~ 70)MHz	6ns	5ns
Operating temperature	(-20 +70) $^{\circ}$ C ~ (-40 +85) $^{\circ}$ C		
Storage temperature	(-55 +125) $^{\circ}$ C		
Output	TTL, CMOS		
Symmetry	(45 ~ 55)%, (40 ~ 60)%		
Tri-state	fixed frequency or tri-state		
Ageing	± 5 ppm first year max.		

* inclusive of calibration tolerance at +25 $^{\circ}$ C, temperature tolerance, supply voltage variation, load variation, first year ageing, shock and vibration.
 ** measured, with an output load of 15pF, between (10 ~ 90)% V_{CC}

Dimensions(mm), through hole



Dimensions(mm), gull wing



Type BJ clock oscillator

Ordering information

Example type BJ clock oscillator, 24.00MHz, +5.0Vd.c., 4 pin(14 pin DIL layout) through hole package, tri-state, ± 10 ppm(-20 +70) $^{\circ}$ C, CMOS 15pF, symmetry (45 ~ 55)%

TFC PART NUMBER BJ 24.0M T K B C J

'BJ' type number: BJ = clock oscillator type BJ

'24.0M' frequency: 24.0M = 24.00MHz, frequency range from (1.0 ~ 70)MHz

'T' supply voltage and package combination: T = +5Vd.c., 14 pin DIL through hole package

'K' tri state function pin #1: K = fixed frequency with tri-state

'B' frequency stability: B = ± 10 ppm

'C' temperature range: C = (-20 +70) $^{\circ}$ C

'J' output logic and symmetry: J = CMOS 15pF, (45 ~ 55)%

Supply voltage and package combination	T: +5Vd.c., 14 pin DIL through hole G: +5Vd.c., gull wing package E: +3.3Vd.c., 14 pin DIL through hole F: +3.3Vd.c., gull wing package
Tri-state function pin #1	J: fixed frequency without tri-state K: fixed frequency with tri-state
Frequency stability	B: ± 10 ppm - not available over (-40 +85) $^{\circ}$ C C: ± 20 ppm
Temperature range	C: (-20 +70) $^{\circ}$ C L: (-40 +85) $^{\circ}$ C
Output logic and symmetry	A: TTL(45 ~ 55)% B: TTL(40 ~ 60)% R: TTL 50pF(40 ~ 60)% E: TTL 50pF(45 ~ 55)% J: CMOS 15pF(45 ~ 55)% K: CMOS 15pF(40 ~ 60)% F: CMOS 50pF(45 ~ 55)% G: CMOS 50pF(40 ~ 60)%

Environmental test conditions

Mechanical shock	1500g, half sine wave, 0.5ms, 3 directions	MIL STD 883D 2002.3, condition A
Thermal shock	(-55 ~ +125) $^{\circ}$ C, 20 cycles	MIL STD 883D 1011.9, condition B
Vibration	(10 ~ 2000)Hz, 1.25mm, sine wave, 20g, each of three planes, duration 4 hours	MIL STD 883D 2005.2, condition B
Solderability	+245 $^{\circ}$ C $\pm 5^{\circ}$ C, 5 seconds ± 0.5 seconds	MIL STD 883D 2003.7
Fine leak	Mass spectrometer leak rate less than 2^{10-8} atm.cc/sec. helium	MIL STD 883D 1014.9, condition A
Gross leak	Leak test in de-ionised water, vacuum 70cm/Hg	
Humidity	85% relative humidity, +85 $^{\circ}$ C, 500 hours	JIS-C 7022 B-5, condition C