F17250B/F17350B & F17255B/F17355B Series
9x14 mm FR-4, 5.0 or 3.3 Volt, PECL, VCXO

- Former Champion Technologies, Inc. Product
- Clock Recovery, PLL, Optic Transmission Equipment, Digital Cross Connect Equipment

Ordering Information

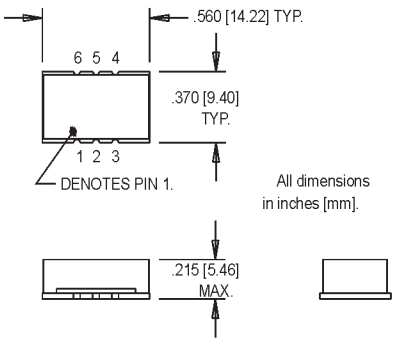
F 1 7 X 5 X B D X 00.0000 MHz

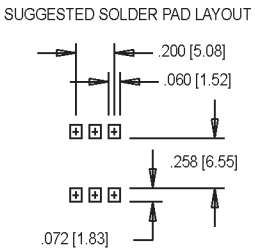
Product Series
- 2: 5.0 Volt
- 3: 3.3 Volt

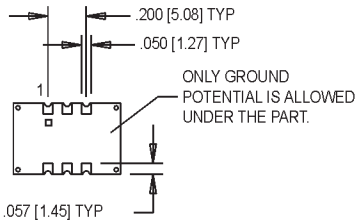
Logic
- 0: PECL - 100E Logic
- 5: PECL - 10E Logic

Temperature Range
- Blank: 0°C to +70°C
- M: -40°C to +85°C

Frequency (customer specified)







Enable/Disable Control

Pin 2	Outputs	
	Pin 4	Pin 5
"0" Enables	Active	Active
"1" Disables	Low	High

Pin Connections

PIN	FUNCTION
1	Control Voltage
2	Enable/Disable
3	Vss/Ground
4	Output
5	Output
6	+Vcc

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F17250B/F17350B & F17255B/F17355B Series
9x14 mm FR-4, 5.0 or 3.3 Volt, PECL, VCXO

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Electrical Specifications	Frequency Range	F	75		180	MHz	
	Frequency Stability:	ΔF/F					
	Overall		Inclusive of Calibration, Temperature, Voltage, Load, and Aging				
	0°C to +70°C				±30	ppm	
	-40°C to +85°C				±50	ppm	
	First Year Aging				±4	ppm	
	10 Year Aging				±10	ppm	
	Pullability						
	75 to 156 MHz		±80		±140	ppm	
	156.1 to 180 MHz		±60		±140	ppm	
	Linearity				10	%	
	Modulation Bandwidth	fm	>10			kHz	±3dB
	Control Voltage	Vc	0.5	2.5	4.5	V	F17250B & F17255B
			0.3	1.65	3.0	V	F17350B & F17355B
	Transfer Function		Positive				
	Input Impedance	Zin	>50KΩ				@ 10 kHz
	Operating Temperature	TA	-40		+85	°C	
	Storage Temperature	Ts	-40		+125	°C	
	Input Voltage	Vcc	4.75	5.0	5.25	V	F17250B & F17255B
			3.135	3.3	3.465	V	F17350B & F17355B
	Input Current	Icc			70	mA	
	Symmetry		45		55	%	Vcc -1.3
	Rise Time	Tr			450	ps	50Ω into, 20% to 80%
	Fall Time	Tf			450	ps	50Ω into, 80% to 20%
	Logic "1" Level	Voh	Vcc-1.1		Vcc-0.88	V	50Ω into Vcc-2
	Logic "0" Level	Vol	Vcc-1.95		Vcc-1.55	V	50Ω into Vcc-2
	Overlap	Tol			50	ps	50%
	Start up Time	Ts			10	ms	
	Jitter				1	ps RMS	fj > 1 Khz
	Sub-Harmonics & Spurious Modes				-60	dB	
	Phase Noise (Typical)	100 Hz	1 kHz	10 kHz	100 kHz	dBc/Hz	Offset from carrier
		-70	-100	-120	-140		
Environmental	Temperature Cycle	MIL-STD-883, Method 1010, Condition B				-55°C to +125°C; Air-toAir; 100 cycles; 10 min. dwell	
	Mechanical Shock	MIL-STD-883, Method 2002, Condition B				1500 g's	
	Vibration	MIL-STD-883, Method 2007, Condition B				20-2000 Hz; 0.06 inch; 15 g's; 3 planes	
	Humidity Steady State	MIL-STD-202, Method 103				40°C; 90%-95% R.H.; 56 days	
	Thermal Shock	MIL-STD-883, Method 1011.7, Cond. B				100°C to 0°C; Water-to-Water; 15 cycles	
	Electrostatic Discharge	MIL-STD-883, Method 3015, Class II				2 KV to 4 KV Threshold	
	Solderability	MIL-STD-883, Method 2022.2				Solder dip; Meniscograph Criteria	
	Hermeticity	MIL-STD-883, Method 1014.8, Cond. A1				Mass spectro. 2 x 10-8 atoms. CC/sec He	
	Resistance to Soldering	See "Figure 2" on page 147					
	Lead Integrity	MIL-STD-883, Mtd. 2004.5, Cond. A,B1				Lead tension & bend stress	
	Marking Permanence	MIL-STD-883, Method 2015.8				Resistance to solvents	
	Life Test	MIL-STD-883, Method 1005.6				125°C, powered, 1000 hours minimum	

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