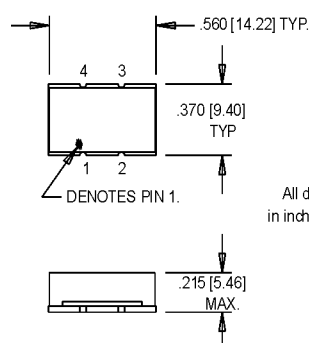


F1139BA Series

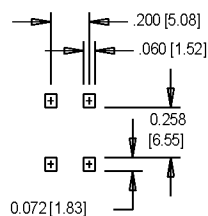
9x14 mm FR-4, 3.3 Volt, PECL, Clock Oscillator



- Former **Champion** TECHNOLOGIES, INC. Product
- Clock Recovery, Optic Transmission Equipment, Digital Cross Connect Equipment



SUGGESTED SOLDER PAD LAYOUT



Ordering Information

00.0000 MHz

F1139BA X X -R

Package _____

Stability _____

Blank: ± 20 ppm (0°C to $+70^{\circ}\text{C}$ only)

B: ± 50 ppm

Temperature Range _____

Blank: 0°C to $+70^{\circ}\text{C}$

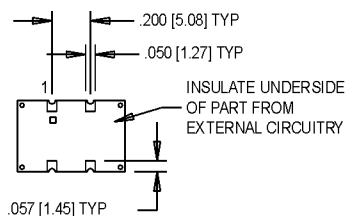
M: -40°C to $+85^{\circ}\text{C}$

RoHS Compliance _____

Blank: non-RoHS compliant part

-R: RoHS compliant part

Frequency (customer specified) _____



Pin Connections

PIN	FUNCTION
1	Output
2	Vss/Ground
3	Output
4	+Vcc

Electrical Specifications	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
	Frequency Range	F	70		200	MHz	
	Operating Temperature	T _A	(See Ordering Information)				
	Storage Temperature	T _S	-40		+85	$^{\circ}\text{C}$	
	Frequency Stability	$\Delta F/F$	(See Ordering Information)				See Note 1
	Aging						
	1st Year			± 2		ppm	
	Thereafter (per year)			± 1		ppm	
	Input Voltage	V _{CC}	3.135	3.3	3.465	V	
	Input Current	I _{CC}			70	mA	
	Output Type						PECL
	Load		50 Ω to (V _{CC} - 2V) or Thevenin equivalent				
	Symmetry (Duty Cycle)		45		55	%	(V _{CC} - 1.3) ref. level
	Output Skew				100	ps	50%
	Logic "1" Level	V _{OH}	V _{CC} -1.02		V _{CC} -0.72	V	50 Ω into (V _{CC} -2) load
	Logic "0" Level	V _{OL}	V _{CC} -1.95		V _{CC} -1.60	V	50 Ω into (V _{CC} -2) load
	Rise Time	T _r			450	ps	20% to 80%
	Fall Time	T _f			450	ps	80% to 20%
	Start up Time				10	ms	
	Random Jitter	R _j		5	12	ps RMS	1-Sigma

1. Inclusive of calibration, temperature, voltage, load and 10 years aging.

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

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