



# F2139BA Series

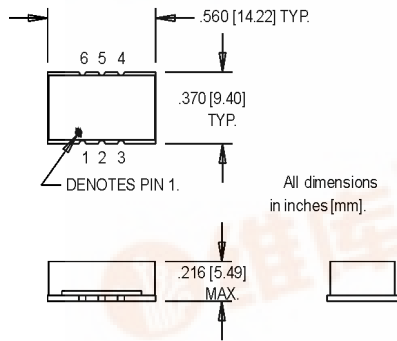
## 9x14 mm FR-4, 3.3 Volt, PECL, Clock Oscillator



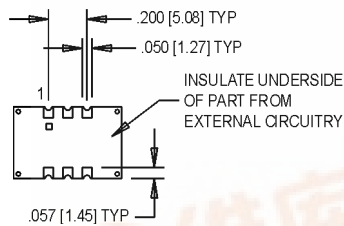
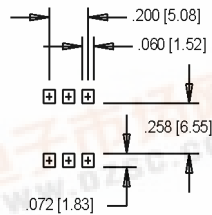
- Former **Champion** TECHNOLOGIES, INC. Product
- Clock Recovery, Optic Transmission Equipment, Digital Cross Connect Equipment

### Ordering Information

	F2139BA	X	X	X	-R	00.0000 MHz
Package						
Stability						
Blank:	±20 ppm (0°C to +70°C only)					
B:	±50 ppm					
Temperature Range						
Blank:	0°C to +70°C					
M:	-40°C to +85°C					
Enable/Disable Function						
Blank:	N/C on Pin 1					
E:	Enable/Disable on Pin 1					
RoHS Compliance						
Blank:	non-RoHS compliant part					
-R:	RoHS compliant part					
Frequency (customer specified)						



SUGGESTED SOLDER PAD LAYOUT



### Pin Connections

PIN	FUNCTION
1	N/C or E/D
2	N/C
3	Vss/Ground
4	Output Q
5	Output $\bar{Q}$
6	+Vcc

PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
Frequency Range	F	70		200	MHz	
Operating Temperature	T <sub>A</sub>	(See Ordering Information)				
Storage Temperature	T <sub>s</sub>	-40		+85	°C	
Frequency Stability	ΔF/F	(See Ordering Information)				
Aging						See Note 1
1st Year			±2		ppm	
Thereafter (per year)			±1		ppm	
Input Voltage	V <sub>cc</sub>	3.135	3.3	3.465	V	
Input Current	I <sub>cc</sub>			70	mA	
Output Type						PECL
Load		50 Ω to (V <sub>cc</sub> - 2V) or Thevenin equivalent				
Symmetry (Duty Cycle)		45		55	%	(V <sub>cc</sub> - 1.3) ref. level
Output Skew				100	ps	50%
Logic "1" Level	V <sub>oh</sub>	V <sub>cc</sub> -1.02		V <sub>cc</sub> -0.72	V	50Ω into (V <sub>cc</sub> -2) load
Logic "0" Level	V <sub>ol</sub>	V <sub>cc</sub> -1.95		V <sub>cc</sub> -1.60	V	50Ω into (V <sub>cc</sub> -2) load
Rise Time	T <sub>r</sub>			450	ps	20% to 80%
Fall Time	T <sub>f</sub>			450	ps	80% to 20%
Enable Function		PECL low: output active PECL high: output disables				
Start up Time				10	ms	
Random Jitter	R <sub>j</sub>		5	12	ps RMS	1-Sigma

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