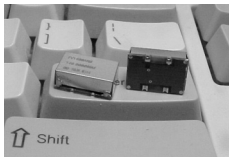
F2139BA Series

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



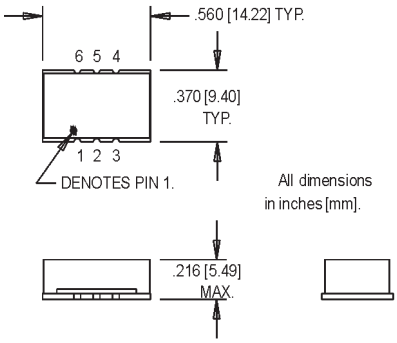
- Former Champion Technologies, Inc. Product
- Clock Recovery, Optic Transmission Equipment, Digital Cross Connect Equipment

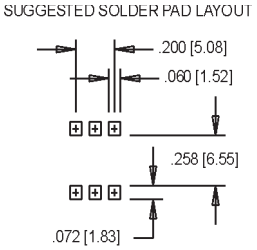
Ordering Information

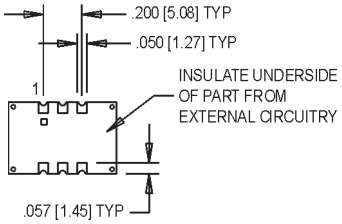
F2139BA X X X -R 00.0000 MHz

- **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)**

M2040Sxxx - Contact factory for datasheet.







Pin Connections

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

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

1. Inclusive of calibration, temperature, voltage, load and 10 years aging.
PECL Load - see load circuit diagram #5.

MtronPTI Lead Free Solder Profile