

- ◆ Frequency Stability to ±20 PPM
- ♦+3.3Vdc or +5.0Vdc Operation
- ♦ HCMOS Output
- ♦ Operating Temperature to -40°C to +85°C
- ♦ Output Enable Standard
- Tape & Reel Packaging
- ♦ Pb Free

ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	MIN	TYPICAL	MAX	UNIT
Output Frequency Range Model 357S, 357W Model 357L, 357V	fo	1.5 1.5	-	80 80	MHz MHz
Frequency Stability (Note 1) (See Ordering Information)	-	-	-	20, 25, 50	± ppm
Absolute Pull Range (Note 2) (See Ordering Information)	-	32, 50, 80, 100	-	-	± ppm
Supply Voltage Model 357S, 357W Model 357L, 357V	V _{cc}	4.5 2.97	5.0 3.3	5.5 3.63	V V
Operating Supply Current $C_L = 15 pf$ Model 357S, 357WModel 357L, 357V	I _{CC}	-	-	40 50	mA mA
Output load	CL	-	-	15	pf
Control Voltage Model 357S, 357W Model 357L, 357V	Vc	0.5 0.3	2.5 1.65	4.5 3.0	V V
Output Voltage Levels					
Logic '1' Level I _{OH} = 14 mA	V _{OH}	0.9 * Vcc	-	-	V
Logic '0' Level I _{OL} = -14 mA	V _{OL}	-	-	0.1 * Vcc	V
Output Transition Times (10% to 90%)					
Rise & Fall Time C _L = 15pf	T _R , T _F	-	-	5.0	ns
Output Duty Cycle (@ 50% Level)	SYM	45	-	55	%
Start Up Time	-	-	-	10.0	ms
Phase Jitter (Bandwidth 12K – 20M Hz)	-	-	< 1	-	ps RMS
Linearity < 52 MHz > 52 MHz	L	-	-	10 15	%
Transfer Function	-	-	Positive	-	-
Input Impedance	Zc	50	-	-	K Ohms
Modulation Roll-off (@ -3dB)	-	10	-	-	KHz
Tri-state – Oscillator Run Enable Input Voltage Disable Input Voltage Enable/ Disable Time	V _{IH} V _{IL} t _{PLZ}	2.5 -	- - -	- 0.5 100	V V ns

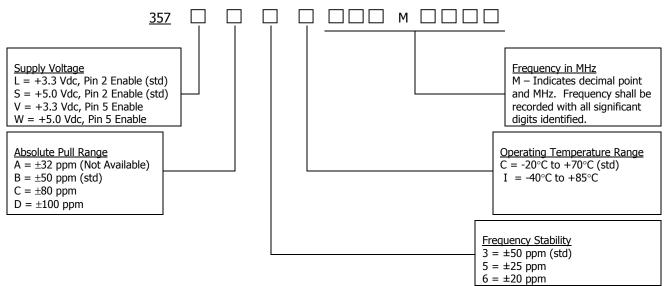
Notes

- 1. Inclusive of initial tolerance at the time of shipment, changes in supply voltage, load and operating temperature.
- 2. Minimum guaranteed frequency shift from fo over variations in temperature, aging, power supply and load at an average operating temperature of +40°C for 10 years.
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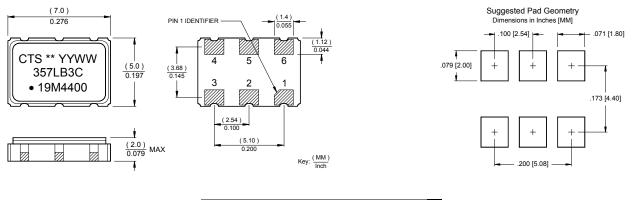


ORDERING INFORMATION



Example P/N: 357LB3C019M4400

MECHANICAL SPECIFICATIONS



Marking Notes: 1. ** Manufacturing Site Code. 2. YY – year, WW – week. 3. Frequency shall be marked with 4 significant digits to the right of the "M".

Terminations plated with 0.3 - 1.0 um gold (Au).

Pin	Symbol	Functional Description
1	VC	Control Voltage
2	EOH	Enable
3	GND	Circuit and Package Ground
4	Output	RF Output
5	N.C.	Not Connected Internally
6	Vcc	Supply Voltage

Enable Truth Table				
Pin 2	Pin 4			
"1"	Output			
"0"	High Imp.			
Open	Output			

QUALITY AND RELIABILITY

Quality Systems meet or exceed the requirements of ISO 9000: 2000 standards. Reliability Audits are performed on this or similar products with results available upon request.

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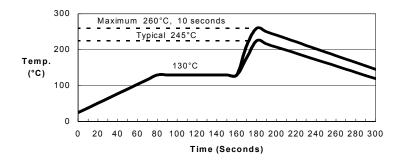
ENVIRONMENTAL SPECIFICATIONS

- Storage Temperature:
- Temperature Cycle:
- Mechanical Shock:
- Sinusoidal Vibration: .
- Gross Leak: .
- Fine Leak:
- Resistance to Soldering Heat:
- High Temperature Operating Bias:
- Frequency Aging:

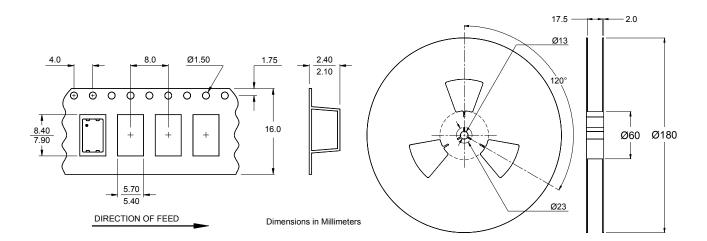
-55°C to +125°C.

- 400 cycles, -55°C to +125°C, 10 min dwell, 1 min transfer. 1,500g's, 0.5mS, ¹/₂ sinewave, 3 shocks each direction, in 3 planes. 0.06" D.A., 10 to 55 Hz and 20g's, 55 to 2,000 Hz,
- 3 cycles per plane.
- No leak shall appear while immersed in an FC40 or equivalent liquid at 125°C for 20 seconds.
- Mass spectrometer leak rates less than 2x10⁻⁸ ATM cc/sec air equivalent.
- Product must survive 3 reflows of 260°C peak, 10 seconds maximum.
- 2,000 hours at 125°C, disregarding frequency shift.
- < 5 ppm shift in 1,000 hours at 85°C.

Suggested Reflow Profile



TAPE AND REEL INFORMATION



Device quantity shall be 1,000 pieces on a 180mm reel.

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