

MINIATURE SMD HCMOS OSCILLATOR F3345/F3355

The F3345/F3355 are our miniature surface mount oscillators, perfect for applications such as portable computers & peripherals, telecommunication devices and instrumentation. These miniature designs offer high reliability utilizing a hermetically sealed ceramic package.



FEATURES

- Miniature Package
- Tri-State Enable/Disable
- 3000 G Shock Resistance
- Tape and Reel (2,000 pcs. STD)

• ELECTRICAL CHARACTERISTICS (VDD = 5.0V, CL = Max Load)

PARAMETERS	FREQUENCY RANGE	CONDITIONS	F3345		F3355		UNITS
			MIN	MAX	MIN	MAX	
Frequency Range (Fo)			1.544	80.000	1.544	50.000	MHz
Frequency Stability	1.544 ~ 80.000	All Conditions ¹	-100	+100	-100	+100	PPM
Temperature Range	1.544 ~ 80.000						
Operating (TOPR)			-10	+70	-10	+70	°C
Storage (TSTG)			-55	+125	-55	+125	
Supply Voltage (VDD)	1.544 ~ 80.000		+4.5	+5.5	+4.5	+5.5	V
Input Current (IDD)	1.544 ~ 25.000 25.000+ ~ 50.000 50.000+ ~ 67.000 67.000+ ~ 80.000			25 40 60 73		13 24 ---	mA
Output Symmetry	1.544 ~ 80.000	2.5V	45	55	45	55	%
Rise Time (Tr)	1.544 ~ 80.000	0.5V to 4.5V		5		10	nS
Fall Time (Tf)		4.5V to 0.5V		5		10	
Output Voltage (VOL) (VOH)	1.544 ~ 80.000	IOL = 16 mA / IOH = 4 mA IOH = -16 mA / IOH -4 mA	4.5	0.5	4.5	0.5	V
Output Current (IOL) (IOH)	1.544 ~ 80.000	VOL = 0.5V VOH = 4.5V		16 -16		4 -4	mA
Output Load	1.544 ~ 80.000	TTL HCMOS		10 50		10LS 15	TTL pF
Start-up Time (Ts)	1.544 ~ 80.000			10		10	mS
Enable/Disable Time	1.544 ~ 80.000			100		100	nS

¹ Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, and vibration.

³ An internal pullup resistor from pin 1 to pin 4 allows active output if pin 1 is left open. Note: A 0.01µF bypass capacitor should be placed between VDD (Pin 4) and GND (Pin 2) to minimize power supply line noise.

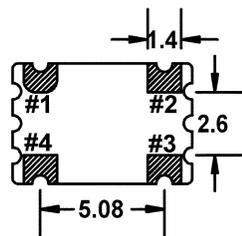
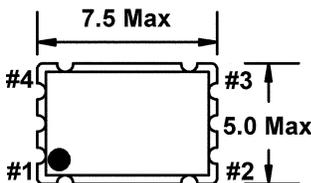
See page 44 for mechanical specifications, test circuits, and output waveform. All specifications subject to change without notice. Rev. 11/30/01

• MODEL NUMBER SELECTION

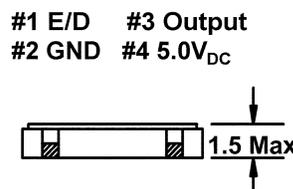
Frequency Stability (PPM) ¹	Operating Temperature (°C)	F3345 Series		F3355 Series	
		Frequency Range (MHz)	Model Number	Frequency Range (MHz)	Model Number
±100	-10 ~ +70	1.000 ~ 80.000	F3345	1.000 ~ 50.000	F3355
±100	-40 ~ +85	1.000 ~ 80.000	F3345R	1.000 ~ 50.000	F3355R
±50	-10 ~ +70	1.000 ~ 80.000	F3340	1.000 ~ 50.000	F3350
±50	-40 ~ +85	1.000 ~ 80.000	F3340R	1.000 ~ 50.000	F3350R
±25	-10 ~ +70	1.000 ~ 80.000	F3346	1.000 ~ 50.000	F3356
±25	-40 ~ +85	1.000 ~ 80.000	F3346R	1.000 ~ 50.000	F3356R
±20	-10 ~ +70	1.000 ~ 50.000	F3348	1.000 ~ 50.000	F3358

• ENABLE / DISABLE FUNCTION ²

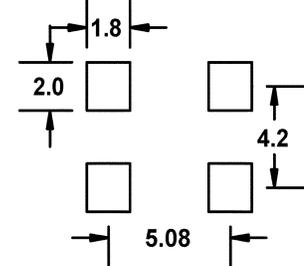
INH (Pin 1)	OUTPUT (Pin 3)
OPEN ³	ACTIVE
'1' Level VIH ≥ 2.2 V	ACTIVE
'0' Level VIL ≤ 0.8 V	High Z



Pin Connections



Recommended Solder Pad Layout



All dimensions are in millimeters.

See page 74 for tape and reel specifications.