

5.0V HCMOS SMD OSCILLATOR

F3345 SERIES

FEATURES

- 5.0V Operation
- HCMOS/TTL Output
- Tri-State Enable/Disable
- Tape and Reel (2,000 pcs. STD)
- Pb Free

OPTIONS

- 1.05mm Height Max
- Standby Function (F4101)



• MODEL NUMBER SELECTION			
Model Number	Frequency Stability ¹	Operating Temperature (°C)	Frequency Range (MHz)
F3345	±100PPM	-10 ~ +70	1.000 ~ 80.000
F3345R	±100PPM	-40 ~ +85	1.000 ~ 80.000
F3340	±50PPM	-10 ~ +70	1.000 ~ 80.000
F3340R	±50PPM	-40 ~ +85	1.000 ~ 80.000
F3346	±25PPM	-10 ~ +70	1.000 ~ 80.000
F3346R	±25PPM	-40 ~ +85	1.000 ~ 80.000
F3348	±20PPM	-10 ~ +70	1.000 ~ 80.000

• ELECTRICAL CHARACTERISTICS	
PARAMETERS	MAX (unless otherwise noted)
Frequency Range (F _o)	1.000 ~ 80.000 MHz
Storage Temperature Range (T _{STG})	-55°C ~ +125°C
Supply Voltage (V _{DD})	5.0V ± 10%
Input Current (I _{DD})	
1.000 ~ 25.000 MHz	25mA
25.000+ ~ 50.000 MHz	40mA
50.000+ ~ 67.000 MHz	60mA
67.000+ ~ 80.000 MHz	73mA
Output Symmetry (50% V _{DD})	45% ~ 55%
Rise Time (10% ~ 90% V _{DD}) (T _R)	5nS
Fall Time (90% ~ 10% V _{DD}) (T _F)	5nS
Output Voltage (V _{OL})	10% V _{DD}
(V _{OH})	90% V _{DD} Min
Output Current (I _{OL})	16mA Min
(I _{OH})	-16mA Min
Output Load	
TTL	10TTL
HCMOS	50pF
Start-up Time (T _s)	10mS
Enable/Disable Time ²	100nS

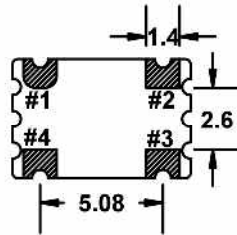
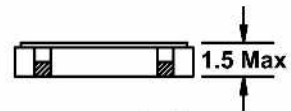
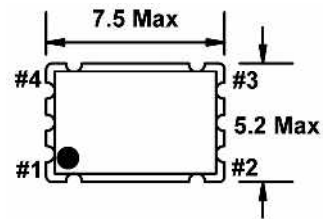
¹ Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, and vibration.

² An internal pullup resistor from pin 1 to pin 4 allows active output if pin 1 is left open.

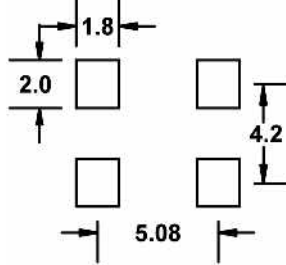
See page 30 for mechanical specifications, test circuits, and output waveform.

Note: A 0.01µF bypass capacitor should be placed between V_{DD} (Pin 4) and GND (Pin 2) to minimize power supply line noise.

All specifications subject to change without notice. Rev. 07/8/03



Recommended Solder Pad Layout



Pin Connections

- #1 E/D
- #2 GND
- #3 Output
- #4 V_{DD}

All dimensions are in millimeters.

• ENABLE / DISABLE FUNCTION	
INH (Pin 1)	OUTPUT (Pin 3)
OPEN ²	ACTIVE
'1' Level V _{IH} ≥ 2.2 V	ACTIVE
'0' Level V _{IL} ≤ 0.8 V	High Z

See page 60 for tape and reel specifications.