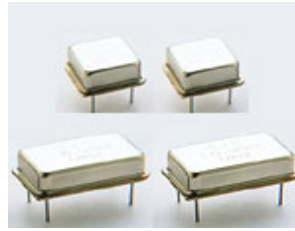


## HCMOS/TTL CRYSTAL OSCILLATOR

### ■ FEATURE

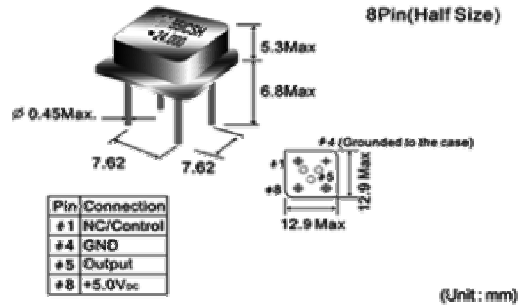
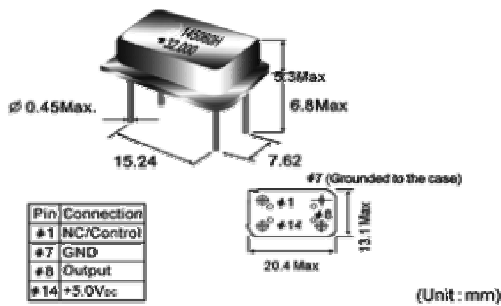
- All metal welded package
- Wide frequency range from 0.25MHz up to 180MHz
- CMOS IC circuit construction built-in with tristate function
- CMOS/TTL compatible in general application



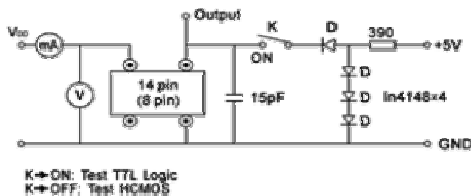
### ■ ELECTRICAL SPECIFICATIONS

Model Type		Full Size		Half Size	
Fan Out Type		TTL/CMOS	CMOS	TTL/CMOS	CMOS
Supply Voltage		5.0V	3.3V	5.0V	3.3V
Frequency Range		0.25-180MHz	0.25-180MHz	0.25-180MHz	0.25-180MHz
Operating Temperature		0-70°C, -20-70°C, -40-70°C			
Frequency Range Input Current (Max.)	0.25MHz~9.999MHz	15mA	10mA	15mA	10mA
	10.00MHz~23.999MHz	15mA	10mA	15mA	10mA
	24.00MHz~49.999MHz	30mA	20mA	30mA	20mA
	50.00MHz~79.999MHz	40mA	20mA	40mA	20mA
	80.00MHz~180.000MHz	50mA	30mA	50mA	30mA
Frequency Stability	All Conditions	±10ppm, ±20ppm, ±25ppm, ±50ppm, ±100ppm			
Symmetry	AT 1/2 Vdd	45/55%			
Input Voltage	Vol(max)	0.4V/0.5V	0.3V	0.4V/0.5V	0.3V
	2.4V/4.5V	3.0V	2.4V/4.5V	3.0V	
Rise/Fall Time	AT 0.1Vdd~0.9Vdd	5ns max			
Driving Ability	CMOS load max	15pF/50pF	15pF	15pF/50pF	15pF
	TTL load max	10TTL		10TTL	
Start-up Time	Load RANGE	5ms max(15pF)/10ms (50pF)			
E/D Function	#1 OPEN	#8 OPEN		#5 OPEN	
	#1 >=2.2V	#8 OPEN		#5 OPEN	
	#1 <=0.8V	#8 HIGHZ		#5 HIGHZ	
PAD Connection		PIN#1 E/D	PIN#8 OUT	PIN#1 E/D	PIN#5 OUT
		PIN#7 GND	PIN#14 Vdd	PIN#7 GND	PIN#8 Vdd

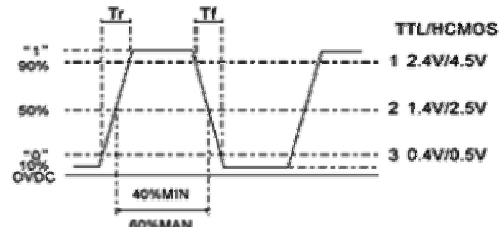
### ■ GENERAL SPECIFICATIONS



### CIRCUIT PRINTCIPLE



### OUTPUT WAVE FORM



### ■ PART NUMBER GUIDE

6MF	48.000	5	50	X	A
Model type 6MF: Full size. 14pin ^MH: Half size. 8pin	Frequency 48.000:48.000 MHz	Supply voltage 5:5V 3.3:3.3V	Frequency tolerance 50:±50ppm 25:±25ppm	Fan oyt type X:TTL/CMOS Y:CMOS z:TTL	