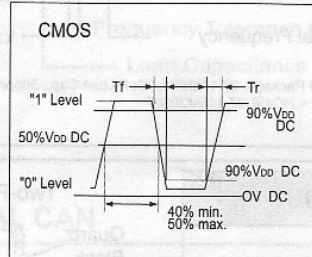
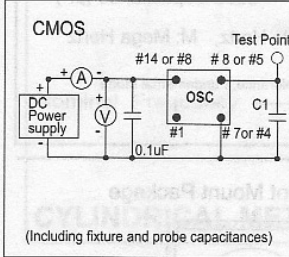
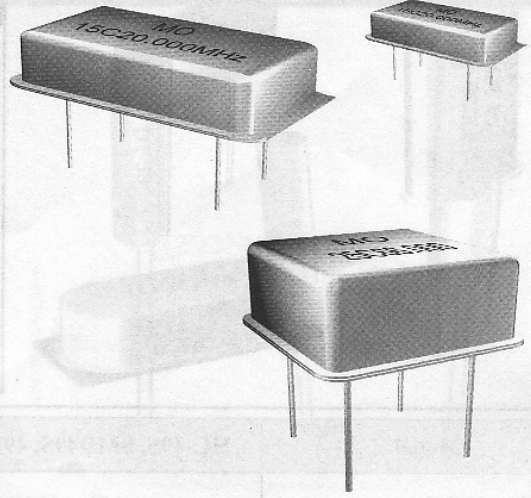
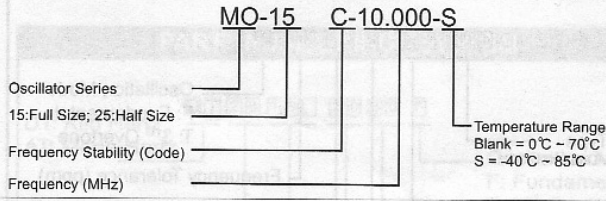


TTL / HCMOS Crystal Oscillators

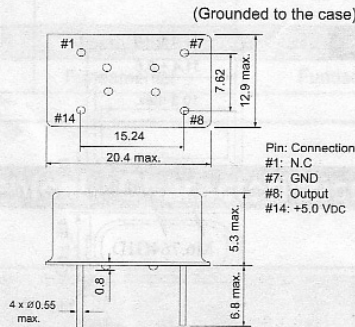
PART NUMBERING SYSTEM



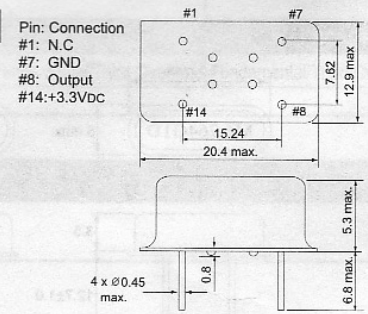
Model	MO-12	MO-22	MO-15	MO-25
Package	14-Pin DIP (Full Size)	8-Pin DIP (Half size)	14-Pin DIP (Full Size)	8-Pin DIP (Half Size)
Frequency Range	250kHz ~ 80MHz		1.000MHz ~ 70.000MHz	
Frequency Stability	±50ppm Typical		A=±25ppm, B=±50ppm, C=±100ppm	
Temperature Range	Operating: 0°C ~ 70°C, Storage: -55°C ~ +125°C.		Operating: 0°C ~ 70°C, -40°C ~ 85°C (Available) Storage: -55°C ~ 125°C	
Power Supply Voltage	5V ± 0.5Vdc		3.3Vdc ± 0.3Vdc	
Supply Current (max.)	30mA - 250kHz ~ 23.999MHz 40mA - 24MHz ~ 80.000MHz		1.000MHz ~ 23.999MHz 24.000MHz ~ 49.999MHz 50.000MHz ~ 70.000MHz	
Output	Symmetry: 60/40% Normal, 45/55% Tight at 50% V _{DD}		40 ~ 60% Normal, 45 to 55% Tight	
	Rise and Fall Time: 10ns max. (15pF)		+5ns max..	
	Logic "0" Level: +0.5V (10%V)		0.4Vdc max.	
	Logic "1" Level: +4.5V (90%V)		2.7Vdc min.	
Output Load	CL - 15pF (typ.) 1-10 TTL max.		2-TTL Load or 15pF HCMOS Load max.	

OUTLINE DRAWING & DIMENSIONS (mm)

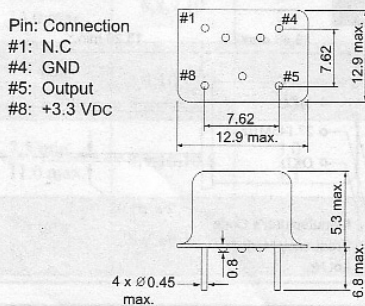
MO - 12



MO - 15



MO - 22



MO - 25

