

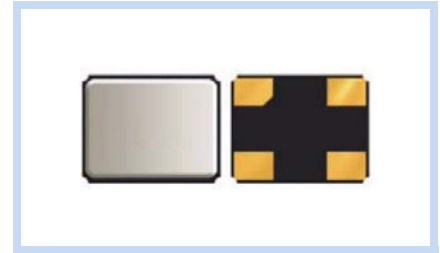
Ceramic SMD Crystal Oscillator SMD 7.0 x 5.0mm CMOS

MO7M series

MERITEK

FEATURE

- Output Logic: CMOS
- Small SMD Ceramic Package
- High precision and high frequency stability
- Applications: Wireless, Mobile Communication, WiMAX, WLAN, PDA, DSD, Notebook



PART NUMBERING SYSTEM

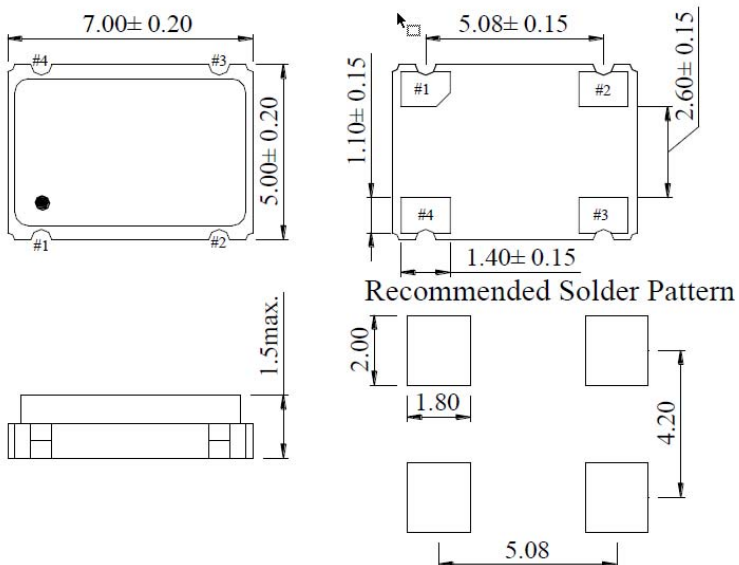
MO7 **M** **33** **J** **C** **25M0**
(1) (2) (3) (4) (5) (6)



No	Item	Code	Description	Series Reference (options)
(1)	Meritek Series	MO7	Oscillator Unit	Ceramic SMD Crystal Oscillator 7.0x5.0mm 4 Pads
(2)	Logic	M	M: CMOS	M: CMOS
(3)	Supply Voltage	33	33: 3.3V	50: 5.0V, 25: 2.5V, 18: 1.8V
(4)	Frequency Stability	J	J: ± 50 ppm	F: ± 20 ppm, G: ± 25 ppm, H: ± 30 ppm (see avail options)
(5)	Operating Temp.	C	C: $-20 \sim +70^{\circ}\text{C}$	B: $0 \sim +70^{\circ}\text{C}$, I: $-40 \sim +85^{\circ}\text{C}$ (see avail options)
(6)	Frequency	25M0	25M0: 25.000MHz	32K768 ~ 156M25 (K and M denotes decimal point)
(7)	Pin 1	Blank	Blank: Tri-State	N: No Connection
(8)	Output Load	Blank	Blank: 15pF	Blank: 15pF (Standard), X: 30pF, Y: 50pF
(9)	Duty Cycle	Blank	Blank: 45/55%	T: 40/60%

DIMENSIONS AND RECOMMENDED PATTERN

(Unit:mm)



Pin	Function
1	Tri-State Enable/Disable
2	GND/Case
3	Output
4	Vdd

Ceramic SMD Crystal Oscillator

SMD 7.0 x 5.0mm CMOS

MO7M series

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AVAILABLE OPTIONS

Parameters	Part Number Options
Supply Voltage	18: 1.8V±10%, 25: 2.5V±10%, 33: 3.3V±10%, 50: 5.0V±10%
Frequency Stability	F: ±20ppm, G: ±25ppm, H: ±30ppm, J: ±50ppm, K: ±100ppm
Operating Temp.	B: 0~+70C, A: -10~+60C, C: -20~+70C, K: -30~+85C, I: -40~+85C, R: -40~+105C

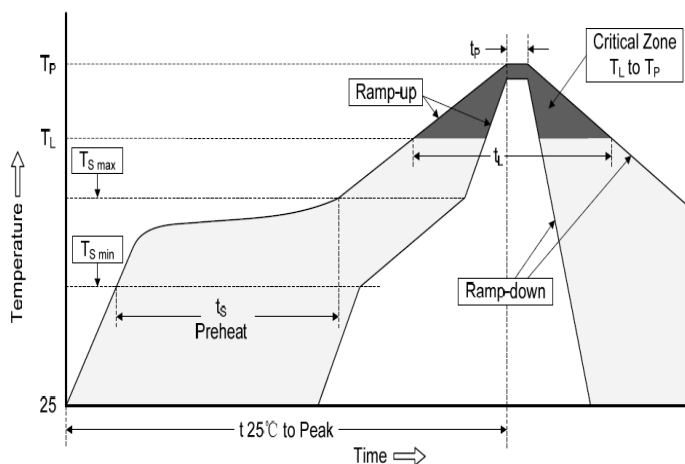
Note: Custom options available. Contact Meritek for more information.

ELECTRICAL CHARACTERISTICS

Parameters		Characteristic
Frequency Range		0.032768 ~ 156.250 MHz
Logic		CMOS
Supply Voltage		3.3V ±10% (see options)
Frequency Stability		±50 ppm (see options)
Operating Temperature		-20 ~ +70°C (see options)
Storage Temperature		-55 ~ +125°C
Duty Cycle		50±5%
Aging @25°C (first year)		±5 ppm
Output Load		15pF max. (see options)
Output Level (CMOS)	High (Logic 1)	90% Vdd min.
	Low (Logic 0)	10% Vdd max.
Supply Current		0.1~45mA
Standby Current		10µA max.
Start Up Time		10mSec max. (5 Typ.)
Rise Time (Tr)	10% ~ 90% VDD	10nSec max. (5 Typ.)
Fall Time (Tf)	90% ~ 10% VDD	10nSec max. (5 Typ.)
Tri-State (Input Pin 1)	Enable High or Float	0.7 Vdd min.
	Disable Low or GND	0.3 Vdd max.

RECOMMENDED SOLDERING PROFILES

Reflow Condition		
Pre Heat	Temp. Min $T_{s(min)}$	150°C
	Temp. Max $T_{s(max)}$	180°C
	Time (min. to max.) (t_s)	60~120 seconds
Average ramp up rate (T_L) to peak		1°C/second max.
$T_{s(max)}$ to T_L (Ramp-up rate)		3°C/second max.
Reflow	Temp. (T_L)	230°C
	Time (min. to max.) (t_L)	30~40 seconds
Peak Temperature (T_P)		260°C
Time within 5°C of actual peak Temperature (t_p)		10 seconds max.
Ramp-down Rate		6°C/second



*Specifications subject to change without notice.