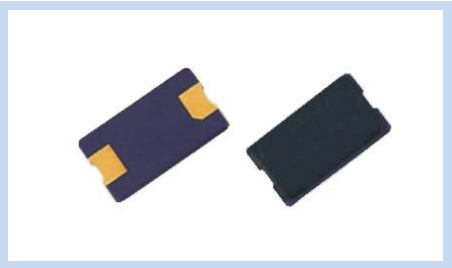
Ceramic SMD Crystal Unit
SMD 6.0 x 3.5mm Type

MXC series

MERITEK

FEATURE

- Surface Mount Low Profile
- Glass Sealed Ceramic
- Excellent Heat Resistance
- High precision and high frequency stability
- Applications: Wired Network, Mobile Communication, WiMAX, WLAN, Test Equipment



PART NUMBERING SYSTEM

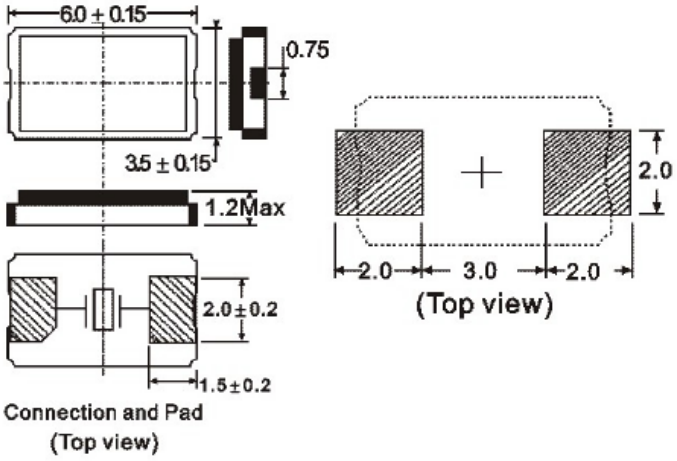
RoHS

MXC	F	H	J	C	11M0
(1)	(2)	(3)	(4)	(5)	(6)

No	Item	Code	Description	Series Reference
(1)	**Meritek Series**	MXC	Crystal Unit	Ceramic SMD Crystal 6.0x3.5mm 2 Pads
(2)	**Load Capacitance**	F	F: 20pF	E: 18pF, R: Series Resonance (see options)
(3)	**Frequency Tolerance**	H	H: ±30ppm	F: ±20ppm, G: ±25ppm (see options)
(4)	**Stability vs Oper Temp.**	J	J: ±50ppm	G: ±25ppm, H: ±30ppm (see options)
(5)	**Operating Temp.**	C	C: -20~+70ºC	C: -20~+70ºC, I: -40~+85ºC (see options)
(6)	**Frequency**	11M0	11M0: 11.000MHz	8M0 ~ 80M0 (M denotes decimal point)

DIMENSIONS AND RECOMMENDED PATTERN

PIN	PIN Layout
1	Input / Output
2	Output / Input



(Unit:mm)

AVAILABLE OPTIONS

Parameters	Part Number Options
Load Capacitance	R: Series Resonance, 3: 3pF ~ 8: 8pF, A: 10pF, B: 12pF, C: 15pF, D: 16pF, E: 18pF, F: 20pF, K: 22pF, G: 25pF, H: 30pF, L: 32pF
Frequency Tolerance	A: ±10ppm, C: ±15ppm, F: ±20ppm, G: ±25ppm, H: ±30ppm, J: ±50ppm
Stability vs Oper Temp.	A: ±10ppm, C: ±15ppm, F: ±20ppm, G: ±25ppm, H: ±30ppm, J: ±50ppm, K: ±100ppm
Operating Temperature	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.

Ceramic SMD Crystal Unit
SMD 6.0 x 3.5mm Type

MXC series

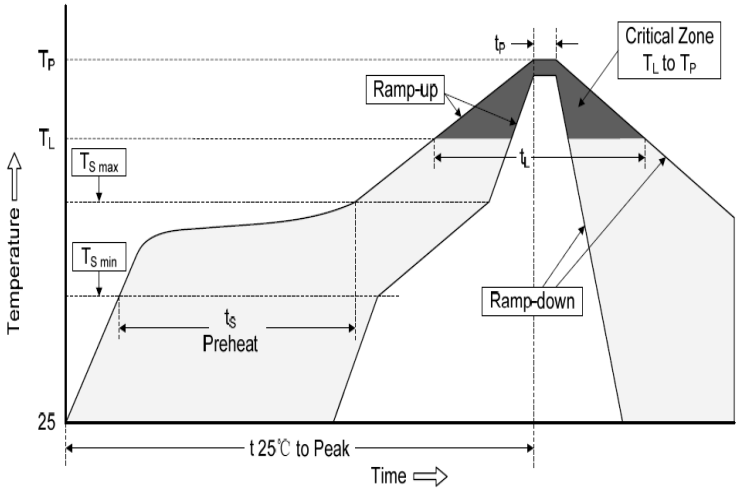
MERITEK

ELECTRICAL CHARACTERISTICS

Parameters		Characteristic
Frequency Range		8.000 ~ 80.000 MHz
Operation Mode	Fundamental	8.000 ~ 30.000 MHz
	3rd Overtone	30.001 ~ 80.000 MHz
Load Capacitance		18 pF (see options)
Frequency Tolerance (at 25ºC)		±30 ppm (see options)
Freq Stability over Oper Temp.		±50 ppm (see options)
Operating Temperature		-55 ~ +125°C (see options)
Storage Temperature		-40 ~ +85°C
Drive Level		100μW max. (10 typ.)
Aging		±5 ppm / year
Shunt Capactiance		5.0 pF max.
Insulation Resistance		500 MΩ min. (@100Vdc ±15V)
Equivalent Series Resistance	8.0 ~ 9.999 Fundamental	70 Ω max.
	10.0 ~ 30.000 Fundamental	40 Ω max.
	30.001 ~ 44.999 (3rd OT)	60 Ω max.
	45.0 ~ 80.000 (3rd OT)	50 Ω 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.