

32.768 kHz Crystal Unit SMD 3.2 x 1.5mm Type

MXT3 series

MERITEK

FEATURE

- Surface Mount Low Profile
- Seam Sealed Ceramic Package
- Applications: Wired Network, Mobile Communication, WiMAX, WLAN, Test Equipment



PART NUMBERING SYSTEM

MXT3 **B** **F** **I** **32K768** **—**
(1) (2) (3) (4) (5) (6)

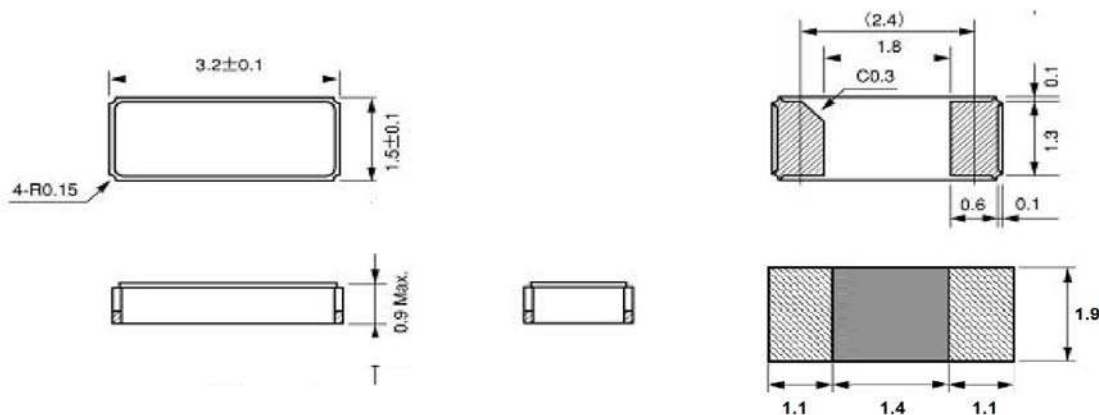


No	Item	Code	Description	Series Reference (Options)
(1)	Meritek Series	MXT3	Crystal Unit	Ceramic SMD Crystal 3.2x1.5mm 2 Pads
(2)	Load Capacitance	B	B: 12.5pF	B: 12.5pF, 9: 9pF, 7: 7pF, 6: 6pF (Note: 1)
(3)	Frequency Tolerance	F	F: ±20ppm	F: ±20ppm, A: ±10ppm, H: ±30ppm
(4)	Operating Temp.	I	I: -40~+85°C	C: -20~+70°C, I: -40~+85°C, Y: -40~+125°C
(5)	Frequency	32K768	32K768: 32.768kHz	32K768 (K denotes decimal point)
(6)	Height Option	Blank	Blank: 0.9mm (Standard)	L: Low Profile 0.65(Note: 2)

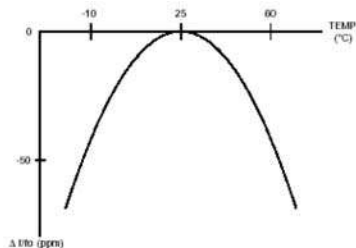
Notes:

1. Contact Meritek for more info on Custom Load Capacitance
2. Contact Meritek for height option availability

DIMENSIONS AND RECOMMENDED PATTERN



FREQUENCY VS TEMPERATURE and INTERNAL CONNECTION

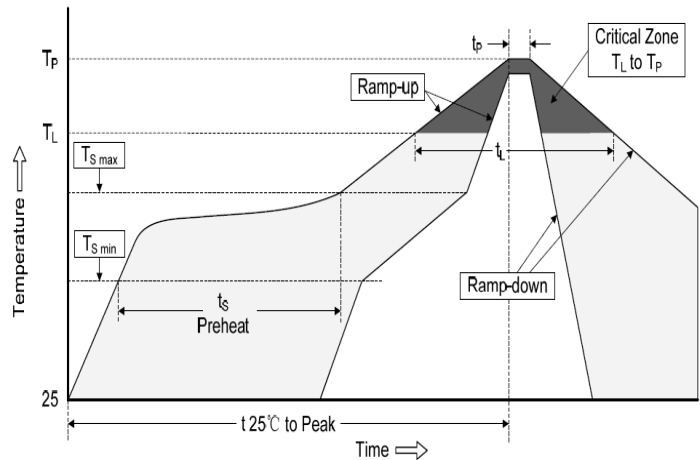


ELECTRICAL CHARACTERISTICS

Parameters	Characteristic	Unit
Frequency Range	32.768	kHz
Load Capacitance (C _L)	12.5 (see options)	pF
Frequency Tolerance (at 25°C)	±20 (see options)	ppm
Operating Temperature	-40 ~ +85 (see options)	°C
Storage Temperature	-55 ~ +125	°C
Turnover Temperature	25 ±5	°C
Frequency Temperature Curve	-0.035 ±0.006	ppm/°C
Drive Level	1 max. (0.1 typ.)	μW
Aging (at 25°C)	±3 max.	ppm / year
Shunt Capacitance (C ₀)	1.2 typ.	pF
Dynamic Capacitance (C ₁)	2.4 typ.	pF
Insulation Resistance @100Vdc ±15V	500 min.	MΩ
Equivalent Series Resistance	70 max.	kΩ
Packing Unit (7" Reel)	3,000	pcs

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.